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Palmtop User

palmtop user

The magazine for handheld computers & communicators

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EDITORIAL

A mid the background hum of "my handheld is better than your handheld" on Internet newsgroups and chat areas, the *real* issue of Palm OS versus Pocket PC versus Symbian is becoming less significant as the months pass.

Unquestionably there are still areas where one type of PDA is better than another, but the amount of commonality between devices is increasing all the time.

Perhaps most significant, many of the favourite programs we've been using on our PDAs are now being ported to competing platforms, and some new programs are simultaneously released for all three of the major handheld types: Palm OS, Pocket PC and Symbian.

Beyond add-on software, disparate devices are also becoming better able to communicate and exchange data with each other, be it via infrared, Bluetooth or whatever.

So, if the majority of the must-have software becomes available for all handhelds and we can all communicate with each other without major headaches, what will the future hold? Hopefully, when every device ships with a suitably capable suite of internal PIM applications, choosing a PDA will become more a question of finding a style, size and weight that suits our own personal preferences, rather than worrying about whether a chosen PDA will even do what we need of it.

It would be over-zealous to believe that we're in such a situation right now, but with all the major players enjoying a decent degree of success at present, that should

serve to fuel further this convergence. With luck, the time will soon come when we can choose a Palm OS, Pocket PC or Symbian device that includes any reasonable combination of PDA, mobile phone, digital camera and any wireless connectivity options we need, plus emerging PDA-based features such as integral GPS.

Far from seeing a situation akin to the desktop computer world, where Microsoft Windows is so very dominant, I envisage a world of handheld computers where we still have a *real* choice—one which doesn't involve making too many compromises on what our handheld computers can and can't do, just in order to stay with our favourite manufacturer or PDA operating system.

Steve Clack - August 2003

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Handheld News

What's new in the world of handheld computing

Palm and Handspring merge

Palm and Handspring have announced that they are to merge, "to form a new, stronger market leader in mobile computing and communications". The new company will be called palmOne and its web site has already been adjusted in line with this. After the merger, Handspring's shareholders will own approximately 32 percent of palmOne and Palm's shareholders will own approximately 68 percent.

www.palmone.com

Pocket PC hits 2003

Pocket PC 2003 is here at last, but under the new title of 'Windows Mobile 2003 for Pocket PC', which Microsoft deems more appropriate for incorporating non-PDA devices which will also operate under variants of this new CE .NET4.2-based version of the operating system. Something of a surprise to most Pocket PC users, visible improvements in this new version are generally minor (see page 33 for more details). Virtually all new Pocket PCs are now shipping with Windows Mobile 2003. Many (but not all) existing devices will be upgradeable to the new operating system—check your Pocket PC manufacturer's web site for details on availability.

www.microsoft.com/windowsmobile

Next generation Treo

Away from the Palm merger news, Handspring has announced the next generation Treo 600, with all the functions of the Treo 270 and 300 (including the QWERTY thumb keyboard) but with a smaller, more phone-like form factor. The Treo 600 also has an ARM processor and runs Palm OS 5, making more multimedia functions possible. The designers have also crammed in an MMC expansion slot and a digital camera. A full review of the Treo 600 is planned for the next issue.

www.handspring.com

The keyboard lives

NEC has announced the MobilePro 900, now the only keyboard-equipped 'handheld PC' on the market and aimed at "field force automation, professional services and healthcare customers". The 900 runs Microsoft Windows H/PC 2000, has 64MB of RAM and another 64MB of ROM, half of which is available for companies to preload specialist software. The display is an 8.1" HVGA (640 x 240) colour screen, there's an integrated modem and the MobilePro 900 runs for around eight hours under normal use. At present there are no plans to make the 900 available in Europe.

www.necsolutions-am.com/mobilesolutions

The XDA II cometh

O_2 has announced the XDA II, which should be available before Christmas 2003. The main addition to the original XDA Pocket PC Phone Edition is a built-in digital camera and full multimedia messaging capability. It will also be tri-band, and will offer optional Wi-Fi and Bluetooth.

www.o2.co.uk

New MiTACs

The Mio 339 and Mio 558 from MiTAC are new Pocket PCs, with the usual personal/business marketing split. The 339 has a camera and built-in flash, while the 558 has

full Bluetooth and Wi-Fi support, with an internal antenna. We'll be reviewing both in the next issue.

www.mitac.com

Series 60 2.0

With the 6600 smartphone, Nokia's Series 60 user interface reaches version 2.0 and is now based on Symbian OS 7.0s. The 6600 is tri-band, with an improved screen, 6MB of internal flash memory and a 32MB MMC card. It will be available towards the end of the year.

www.nokia.com

Enter the Helix

Tapwave has licensed Palm OS, unveiling a Palm OS mobile entertainment gaming device. Codenamed 'Helix', this will be available late this year and will be based on Palm OS 5.2, with a 480x320 pixel screen, analog joystick, 3D graphics acceleration, 'rumble' effects, Bluetooth and stereo sound.

www.tapwave.com

JVC focusses on multimedia

A new high-end Pocket PC from JVC, the iO MP-PV331, sports "unique audio/video capabilities". On the audio side, there's

proprietary playback software with equalizers and enhancers. On the video front, there's unlimited MPEG4 video capture from certain JVC digital camcorders. Wi-Fi networking means that captured files can be streamed to other computers on a network.

www.jvc.com

More new Sony Clies

Recently announced by Sony are the NX80V and NX73V. The former has a 1.3 Megapixel camera with a flash, Palm OS 5, 32MB of RAM, a backlit keyboard and a CF card slot. The NX73V has similar features, but with a lower resolution camera. For the first time, there's native support for the Sony Memory Stick Pro format and standard memory CF cards, plus the new Decuma Input Handwriting Recognition Software.

www.sonystyle.com

Clamshell comeback?

Rewriting the PDA rulebook (again), Sony has officially announced the PEG-UX50 and UX40, each a magnesium clamshell design with large swivel screen, digital camera and built-in keyboard. Interestingly, their processor speed varies between 8MHz and 123MHz, depending on demand. A dedicated graphics chip supports OpenGL and

can play back MPEG video at 30 frames per second. The screen has 480x320 pixels and can be rotated and used in both flip-up and tablet mode. Each model has 104MB of RAM (though not all of this is available for direct use), Bluetooth, microphone, headphone jack and a Memory Stick Pro slot. The UX50 also has Wi-Fi support. Battery life with average use is estimated at an impressive two weeks, increasing to up to six weeks with a clip-on battery accessory.

www.sonystyle.com

Universal document viewer

Billed as the tool that "Converts virtually any document on your PC to your mobile device", RepliGo combines a handheld viewer application with a Windows desktop conversion tool. Available for Palm OS, Pocket PC and Microsoft smartphones, Symbian Series 60 and the Sony Ericsson P800, RepliGo currently boasts no fewer than 15 specifically-supported file types, ranging from the usual Office suite to PDF format, Visio, Microsoft Money, Adobe Illustrator, CorelDraw and, in principle, any other application that can print to a windows printer driver. The basic handheld viewer application is free, and the desktop conversion application costs $30. We'll be featuring RepliGo in the next issue.

www.cerience.com

Garmin goes GPS with Palm

Already released in the USA and due for imminent arrival in the UK, the Garmin iQue 3600 melds a GPS receiver and a 200MHz, ARM-powered Palm OS handheld. GPS and mapping software are all integrated, and the unit incorporates voice commands for hands-free navigation. It features a large 480x320 pixel screen, and comes supplied with a generous software bundle, all priced at around $600. We'll be featuring the iQue 3600 in the next issue.

www.garmin.com

Wireless Dana

AlphaSmart's innovative Dana, aimed primarily at students, is now available in a wireless (Wi-Fi) version and all models are now to come with 16MB of RAM, updated software and an enhanced (16 greyscale) monochrome screen.

www.alphasmart.com

Homegrown video

It's now possible to produce your own '.3gp' movies. PacketVideo Recorder converts both video (MPEG-1 and AVI) and audio (MP3 and WAV) into the special format used by smartphones for video messaging (MMS), remote monitoring and entertainment.

www.packetvideo.com

Palm updates

Palm has released a software patch that combines previously released system updates for the Tungsten T and fixes some additional issues. These include problems with Bluetooth Internet connection via a PC, digitizer sensitivity, audio playback and the Application launcher, which would crash when over 345 files were stored in main memory. The patch requires almost 700K of RAM.

There's also a patch for the Zire 71. The Expansion Update addresses an issue with some expansion cards failing to read in the Zire 71 after repeated use. Finally, there's one for the Tungsten C as well, addressing issues involving a MAC address bug, clicking noises and Wi-Fi compatibility.

www.palm.com

AvantGo for Palm OS 5

AvantGo is now formally available for Palm OS 5, with the launch of version 5.2.

my.avantgo.com

Mapopolis firsts

Mapopolis and Positioning Solutions have jointly announced a real-time spoken navigation system for Palm OS, matching similar services available for Pocket PC. The Navigator software will generate directions for you and then provide spoken prompts as each turn approaches. Should you miss a turn or accidentally turn in the wrong direction, the software will automatically re-route you to your destination.

In addition, despite the Handspring Treo's all-in-one approach, interfacing it with a GPS has been impossible until now. Mapopolis has launched a Treo-compatible model, plugging into the USB HotSync connector and costing around $200.

www.mapopolis.com

Psion Series 3 reborn?

Despite having ceased production by Psion almost four years ago, POS Ltd has just announced official (and large) stocks of brand new Series 3mx palmtops, complete with accessories, from £145 including VAT.

www.posltd.com

THE BIT BOX

A quick look at some of the latest PDA-related accessories, books and must-haves...

Pens with laser beams?

A super-stylish stylus with a laser-pointer in the end, the 'Duo Stylus/Pen with Laser Pointer' from StylusCentral is the ideal thing for PowerPoint presentations, or even just to entertain your pet cat. $25 (currently on sale at $10).

www.styluscentral.com

Stylus extension

Do you find the Palm Tungsten T's stubby little stylus just a little too short? Also from StylusPlus, the unexcitingly-named '2-in-1 Stylus and Pen for Palm Tungsten T' is a telescopic (rather than spring-loaded) stylus that's almost 25mm (1 inch) longer than the original, so fits much better in your hand. It also has a refillable ballpoint pen in the cap. $20 (currently on sale at $10).

www.styluscentral.com

Handheld mystery

It's not too often that handhelds feature in mainstream novels, but Palm Sunday, by William R Vitanyi Jr., is an entertaining technological thriller that's centred entirely

PALM SUNDAY

William R. Vitanyi, Jr.

around a handheld computer.

Appropriately, it's available in ebook as well as traditional paper format. The ebook is available in iSilo, Palm Reader and Microsoft Reader formats at a bargain $5, or $17 direct from the author's web site (see below) in signed paperback version.

www.palmsundaybook.com
www.aventinepress.com (ISBN 1593300174)

Palm OS
SOFTWARE

We take a look at the latest software for your Palm OS handheld or communicator...

Brain surgery

The first serious hierarchical outliner for Palm OS, **BrainForest** has languished with barely an upgrade for a few years now. Recently taken over by Ultrasoft, this new version 3 adds the ability to store files on storage cards, colour support and better editing capabilities. In most respects it's still not the most powerful outliner in town, but it does have a few unique features, including a neat Gantt chart-like 'timeline' feature and a (very basic) desktop companion program for Apple Macintosh users. $25, or $20 without the desktop companion, from *www.ultrasoft.com*.

Turbo memos

Always a good choice if you find the built-in Palm OS Memo Pad too lightweight, **Memo PLUS** has just had a major upgrade to version 4. Individual memos can now be easily encrypted to DES standard, and the program now includes hi-res screen support for all current sizes. Rather less useful for most of us, it now incorporates its own program launcher, designed (apparently) to give quick access to other memo-like applications. Still, the ability to add alarms and sketches to memos is always handy, and the best feature is being able to save memos as templates, making it easy to create simple reusable forms for a variety of uses. $20, from *www.handshigh.com*.

Launcher heaven

Just one of many alternative program launchers for Palm OS, **Silver-Screen** may well be the most handsome of them all. The new version 3 still lacks some of the advanced features of other top-notch launchers, but its presentation is second to none. There's now even an optional 'ticker' strip across the bottom of the screen that can display your day's appointments or a range of other newsfeeds that can be downloaded separately. You can now also add a background 'wallpaper' image, sound effects, plus the usual variety of themes to enrich your

program launching experience. Lots of fun, if that's the way you like your launchers. $25, from *www.pocketsensei.com*.

Giant almanac

The 1000+ page US-based **World Almanac** book has always been an excellent source of reference information, and not just for those in the USA.

The whole thing is now available in electronic form for both Palm OS and Pocket PC, either as 16 separate database files that can be purchased individually, or as a complete bundle. The bad news is that the entire collection comes at almost three times the price of the paperback volume, but being driven by the excellent DataViewer engine, this giant 10MB database is quicker and easier to search, with everything neatly categorised, though it lacks a global search facility. You'll find everything from facts and figures on the world's nations to details of Olympic champions from 1896 onwards. $30 for the complete collection, from *www.pocketdirectory.com*.

Melody maker

The idea of creating high quality music on a PDA has never been a serious proposition, but **Music Studio** is an ambitious polyphonic

music composer that features more than 100 instruments and up to eight tracks per melody. There's even a built-in alarm manager utility so you can use your tunes effectively on your handheld. To play back polyphonic sound on your PDA you'll need the enhanced sound capabilities of a Sony Clie NX, NZ or T series model, but completed tunes can also be exported to your PC in MIDI format, or to selected Nokia, Sony or Siemens phones, for use as ringtones or alarms. The program is clearly designed for those with a little musicality (tunes are entered via a piano-style keyboard) and a good knowledge of music terminology, but if you fit that category then you can expect impressive results. $13, from *www.micromadhouse.com*.

A new acrobat

Adobe Acrobat (PDF) has become something of a universal document format over the past few years, but viewing anything but fairly plain

text on a Palm OS handheld has been a disappointing experience, with stripped-down graphics and slow rendering of pages. This new version 3 of Adobe's own reader, renamed from Acrobat Reader to **Adobe Reader**, adds support for Adobe Reader ebooks and Adobe Photoshop Album slide shows, in addition to standard PDF files. The main problem is that files still need to be run through the PC/Mac-based desktop Acrobat component in order to distill standard PDFs into Palm-compatible PRC format, tagging them for optimised viewing on the handheld if necessary. This results in files that are efficiently compressed, but still poorly formatted and agonisingly slow to navigate. The software fails to impress even as an ebook reader, with no bookmarking, annotations or dictionary facility. Accessing rich content on a small-screened and processor-limited handheld device is a perennial problem, and Adobe's new reader is still far from satisfactory. Free, from *www.adobe.com*.

Diary distributor

If you're part of a club, sports team, school or any organisation that needs to distribute diary and contact information to members, **DatePak** may be the ideal solution for you. By creating all the required information via a single Palm application created on a Windows PC, users get access to a single file containing all the events and contact information for the organisation. The resulting file can't be edited on the recipients' handhelds, but individual or groups of events and contact details can be copied to the recipient's Palm Date Book and Address Book as desired. The 'calendar' package created by DatePak can be customised with your own icon or logo, and then distributed to others via infrared, HotSync, email, etc. A straightforward and effective solution at an excellent price. $25 for a single desktop package allowing distribution of calendar files to up to 30 users, or $200 for an unlimited site license, from *www.natara.com*.

MP3 heaven

An application that's been updated significantly in recent months, **AeroPlayer** is a handsome MP3 (including Vorbis format) music

player with plenty of features, including some sound quality improvements. You'll find a skinnable interface with editable playlists, shuffle and repeat play, graphic equalizer and full support for background playback, so you can listen to your favourite music while doing something else. $15, including one year of product upgrades, or $30 including lifetime upgrades, from *www.aerodromesoftware.com*.

The key to Outlook?

From the producers of PocketMirror, which allows Palm OS handhelds to synchronize with Microsoft Outlook, comes

KeySuite, now in version 2. Rather than using the four built-in Palm PIM applications to store your Outlook data on the handheld, KeySuite instead installs its own four (similar) applications, which are better able to handle Outlook's more advanced features such as multiple folders and billing details, rather than simply omitting them from the handheld application. Understandably enough it still falls short of a full implementation of Outlook on your PDA, but it's a huge improvement on the standard Palm applications, the four components integrate very well, and synchronization is impressively fast. Well worth a look for all serious Outlook users. $50 (on introductory offer) from *www.chapura.com*.

Or alternatively...

If you're looking for a set of more Microsoft Outlook-friendly PIM applications for your Palm OS handheld then **Beyond Contacts** claims a more extensive feature set than KeySuite (above) by adding email support, all for the same money. Taking a similar

approach of bypassing the built-in PIMs entirely, Beyond Contacts adds synchronized email support via its own DataVizMail application. As with KeySuite, initial setup is very straightforward, though the import of Outlook data takes far, far longer with Beyond Contacts. Presentation varies between the two packages, but in the end it's largely a matter of personal preference, with KeySuite more closely mimicking the built-in Palm suite but Beyond Contacts adding Outlook email support, and with an overall look and feel more like Outlook itself. $50, from *www.dataviz.com*.

Indispensable aliasing

Despite the uninteresting name, **TealAlias** is a fabulously useful tool. Just like aliases on a desktop computer, by adding suit-able icons to your Applications screen or third party launcher, you can access any program, file or individual database with a single tap, even if the file resides on a memory card. TealAlias is something every serious Palm user should investigate. $15, from *www.tealpoint.com*.

Password stash

A market that's already served by a number of excellent products, **Passwords Plus** looks like nothing more than a leap onto the bandwagon into what is undoubtedly a sizeable market, given that we all need to keep our personal passwords, bank account detaiis and PIN numbers safe by some means or another. The usual feature set is all there, with 128-bit encryption and templates for different types of personal data, but there's otherwise nothing of particular note, and it's less graphically appealing than some of its competitors. On the plus side, it offers a good desktop counterpart application for both PC and Macintosh (OS X only) computers. $30, from *www.dataviz.com*.

A quick keypad

At first glance it looks like little more than an on-screen phone dialler, but on closer inspection **TAKEphONE** is a replacement interface for all your Address Book activities, with a mass of extra functionality built in. Whether your Palm OS handheld has an integral phone, you're communicating with a standalone mobile phone via infrared or Bluetooth, or you just want to dial a landline phone using traditional DTMF tones, TAKEphONE will do the job. It takes some time to learn your way around the interface, but almost everything is designed for one finger operation. There are big, chunky on-screen buttons and pop-up menus to handle address lookups, editing and dialling, and for quick access to SMS and email if you have suitable applications installed. It's all immensely configurable, and you can set up speed dials for your 10 most commonly-used contacts and to redial the last 10 numbers called. If you make a lot of phone calls, TAKEphONE is well worth a look. $20, from *www.shsh.com*.

Symbian
SOFTWARE

A roundup of the latest software releases for your Nokia or Sony Ericsson communicator or Psion handheld...

Active Desk

It's rather an indictment of the P800's interface that something like **Active Desk** is thought to be needed at all. The main feature is an all-in-one summary of your day, tasks and messages, shown (after a brief but irritating pause) whenever you open the P800's flip. It looks good and is hugely customisable, but is ultimately a cosmetic thing, dropping out to the original P800 applications if you want to actually do anything. Icons down the left-hand side kick off each application in its appropriate 'new entry' mode. The other feature of note is the built-in Task Manager, rectifying this important omission in the Symbian operating system, showing what's currently running and letting you switch to (or end) a particular application. $20, from *www.cibenix.com*. Also available for Nokia 9200 series and 3650/7650.

Tracker

Along similar lines but slightly wider in its scope is **Tracker**. Like Active Desk, there's a 'Today' view and a task manager ('Running apps'), but in addition there's a fully-fledged Windows-like File manager, something else that Sony Ericsson chose to omit. Perhaps most usefully of all, there's an icon-based application launcher with two panels of up to 49 icons. As with Active Desk, there's complete control over which views pop up using which button presses. €20, from *www.symbianware.com*.

Handy Safe

Every handheld user needs somewhere to store confidential information, and in the absence of security within the built-in applications, **Handy Safe** should do the job nicely. Its entire database is encrypted with your password of choice, so you can leave the P800 itself unlocked without

worrying about your secrets. There's the usual assortment of 30 or so predefined templates ('Credit card', 'Drivers license', 'Web site', etc.) but you can easily create generic records using the 'Note card' type. The companion PC desktop application is also impressive, giving you complete, secure and synchronized access to your confidential information on either computer. Highly recommended. $25, from *www.epocware.com*. Also for 3650/7650.

Raiding the tomes

Need an encyclopedia on your phone? If so, you'll be pleased to hear that the ever-popular **TomeRaider** has now been ported to the Sony Ericsson P800. You'll undoubtedly need a good-sized Memory Stick to store all those (free) TomeRaider volumes, which include a range of dictionaries, the Internet Movie Database and a number of out-of-copyright novels, but this P800 version has the usual super-quick search facility, hyperlinks and more. £20, from *www.proporta.com*.

Easy Data

Almost every ex-Psion user who has moved onto a newer Symbian-based device bemoans the absence of Psion's simple but useful Data database application. **Handy Base** fills that

gap quite nicely, with a basic-but-competent application that's easy to set up and reasonably fast to use. Both Card and List views are incorporated, with basic field types similar to Data. A desktop convertor application handles conversion between Handy Base and common formats such as Microsoft Access, Excel, CSV, and DBF. $25, from *www.epocware.com*

Mobile Acrobat

With PDF being the standard for all electronic documentation, mBrain Software's **Pdf+** is a vital addition to the Series 60 software scene. It's now in final beta testing and is reasonably fast and stable, with only a few screen font issues. There are the usual Find and Zoom functions, just like the rest of the Pdf+ family. €25, from *www.mbrainsoftware.com*.

A watchful eye

Just released and sounding utterly intriguing, **Argus Remote Surveillance** promises to give you a live Internet video link to a video camera in your office, garden, or whatever else you'd like to check up on. Finally, the perfect application for those of us who worry about our houses being burgled or burned down while we're on holiday. Its needs are fairly modest: a PC webcam, a desktop broadband Internet connection and a GPRS-enabled Series 60 smartphone. The Argus RS software then

shows, at a low frame rate, whatever you'd pointed the camera at. $27, from *www.my-symbian.com*.

The moon in your window

Tired of the two basic options of a digital or analogue clock on your Psion? **MoonClock** adds a conventional digital display, but with a view of the moon's current phase shown above it. Free, from *www.mypsion.ru/moonclock*.

Slick desk clock

If you want to turn your hi-tech Nokia 9200 series communicator into an expensive desk clock, here's your chance. Not quite as gimmicky as it might sound, **SmartClock** fills your screen with a big, clear digital clock display with the current month's calendar adjacent to it. You can pick from the built-in background images or add your own, and adjust the opacity of the clock display to show the background image more clearly. Totally unrelated to the on-screen clock, and truly worthless, it can also be set to play any sound file when you open or close the casing. The clock display is invoked by a simple hotkey combination or as a 'screen saver', and a single keypress takes you back to what you were previously doing. Nicely done. €7 from *www.symbianware.com*.

Call rejector

If you're feeling unsociable or just want to filter your incoming calls, **BlackList** can be set to selectively reject calls from specific people in your address book, or to accept only calls from a selected list. By using its built-in 'situations' criteria, you can set up different blacklists for evenings, weekends, while on holiday, etc. Just the thing to stop the boss phoning you while you're on the beach. Most importantly, rejected calls are intercepted before the phone has a chance to ring, and the unwanted caller will simply hear a busy/engaged tone each time. €10 from *www.symbianware.com*.

Keeping track of time

Ever since palmtops appeared, people have been using them to keep track of time, but until **TimeLog** nothing had appeared for the Nokia communicator. The idea is simple, with eight client (or project) timers, each of which can be started and stopped independently. TimeLog is well rounded, with comma-delimited export to spreadsheets, a system-wide hotkey and text notes for each client. Just about the only downside is the requirement for the OPL runtime, which needs 500K or so of memory while loaded. Luckily, TimeLog keeps good track of time even when not running, so this isn't usually a problem. £10, from *3lib.ukonline.co.uk/timelog.htm*.

Pocket PC
SOFTWARE

Some of the most interesting new software additions for your Pocket PC handheld or communicator...

Slick photo album

A worthwhile new entry into an already burgeoning product category, **SplashPhoto** represents SplashData's first step in porting its immensely popular Palm OS titles to Pocket PC. Virtually identical to its Palm OS cousin, this full-featured photo album/image viewer program is well worth a look. As well as multiple thumbnail modes and the ability to categorise and annotate images with your own notes, there's a simple slide-show feature and an excellent PC desktop companion program. This converts from common image formats, letting you zoom, pan and rotate the original to improve the fit on your PDA screen. There are sliders to adjust the brightness and contrast of images before saving them to the PDA too, which allows minor compensation to poorly-exposed originals. You can beam and email images directly from Splash-Photo, or set them as your Today wallpaper. $20, from *www.splashdata.com*.

Number one utility

Billed as the number one best selling product for Pocket PC in 2002, and probably due for the same accolade this year, the superb **Battery Pack 2003** is now at version 5. As well as providing a customised Today screen with icons to launch up to 60 programs and status displays for battery, memory, storage cards and backlight, version 5 adds a number of small tweaks and performance enhancements. Most important of the new features is a tiny icon at the top right of the screen that can be used to close down the current application (rather than simply minimise it) if held down for a second. There's also a new battery status bar that appears in every application, just below the time display at the top of the screen. By no means the first utility to offer these features, but most certainly the only one to offer so much in an integrated package. $12, from *www.omegaone.com*.

The world in your hand

A program that makes good use of the PDA screen to present information in an interesting and interactive way, this new version of **Pocket Earth** (2.0) is a fun way to learn more about the world we live in, and a good educational tool. Pocket Earth presents a view of the globe that can be rotated by dragging it with a stylus. Tapping at any point shows the nearest country/city, together with a wealth of related information, and there's a quick find function that will zoom you to any of the 15,000 cities in Pocket Earth's database. A huge array of features and overlay options range from the display of a basic latitude/longitude grid to a view showing the world's active volcanoes. The icon-based interface is all a bit confusing at first and some of the on-screen text can be hard to read against the multi-coloured background, but there's plenty to experiment with, and it's enlightening fun simply to browse the globe, examining various countries and features. $15, from *www.bluepointstudio.com*.

Head for the stars

If your interests lie a little further afield, **Pocket Stars** is a great way to learn more about the universe. By setting up your home location and taking the local time from your Pocket PC's internal clock, Pocket Stars provides an accurate, real-time view of the heavens directly above you, making it easy to locate and identify visible planets, stars and constellations. There's plenty of configurability, so you can display any combination of star and planet names, constellation names, Messier and Caldwell objects, and so on. This new version 2 adds an animated display and can be set to show the orbital path of celestial bodies. If you're new to astronomy then you'll probably need to study the brief-but-useful online help text before getting started. If you've already got a little knowledge on the subject, you'll find Pocket Stars a great tool to help develop your expertise. $15, from *www.nomadelectronics.com*.

Power PIM...

Though already covered in the last issue, **Pocket Informant** has seen yet another major upgrade, this time to version 4.5. As the most advanced mainstream replacement for the built-in PIM applications, Pocket Informant is one of the most significant software products for Pocket PC. Aside from Windows Mobile 2003 compatibility, this version adds dozens of small enhancements, ranging from saveable, shareable colour schemes to Notes View sorting and better templating, with further speed improvements all around. If you find Pocket PC's standard Contacts, Tasks and Calendar applications too under-powered for your needs, take a good look at Pocket Informant. $25, from *www.pocketinformant.com*.

...and another

Not quite as ambitious as Pocket Informant, this new version 5 of **Agenda Fusion** is equally worthy of consideration as a replacement to the standard Pocket PC PIM suite. With a little more emphasis on simplicity, Agenda Fusion is a bit easier to master in most areas, but still has enough enhancements to entice users from the standard PIM applications. Version 5 adds new calendar views with improved layouts, a completely revised user interface and a better turn of speed. $30, from *www.developerone.com*.

Expanding Explorer

As far as PDA-based web browsers go, Pocket Internet Explorer (PIE) is an unusually capable application. Good as it is, the web browsing experience on a handheld is always limited by the visible screen area, and PIE's lack of a full-screen mode is probably its biggest limitation. Enter **PIEPlus**, which seamlessly adds its own menu to the standard application, complete with a full screen option. There's more to it though, with a customisable, optimised view that makes a good job of fitting web pages to the small handheld screen. Another nice feature is ClearType smoothing of text, which doesn't otherwise work in the Pocket PC 2002 version of PIE. You can even open multiple Explorer windows with PIEPlus, and navigate easily between them via the PIEPlus menu. Overall, PIEPlus works like a dream, and is a must-have addition for anyone who uses Pocket Internet Explorer on a regular basis. $20, from *www.reensoft.com*.

Flexible notes

The built-in Pocket PC Notes application has basic support for scribbled sketches with its pen tool, but it's all fairly basic, with black ink only and no way to save sketches into other formats on the handheld itself. **PhatPad** is very Notes-like in operation, but adds a full colour palette with 10 pen widths, and can save sketches into industry standard JPEG or BMP formats if desired. If you already use Phatware's excellent CalliGrapher product in place of the standard Transcriber, PhatPad will also recognise your scribbles and convert them to plain text. PhatPad's digital ink technology does a good job of smoothing your squiggles to mimic the feel of pen on paper, and it's easy to edit, zoom or erase your multi-page jottings. There's a good search feature and even an option to look for text strings within (unconverted) ink notes if you have CalliGrapher installed, which works astonishingly well. $10, from *www.phatware.com*.

We're shopping

Shopping list managers abound in the Pocket PC world, but **Shopping List** adds a good Windows desktop component for faster entry, saving completed lists directly to the handheld rather than relying on a special conduit. As always with shopping

list managers, it's nothing that can't be set up using a good database application, but it would undoubtedly take a lot more work to set up. Tapping on a blank line in the list pops up a pick list of groceries, plus fields for quantity, price, shop location/aisle, and so on. To add new item types you're forced to go into a separate 'Item Manager' option, but the overall interface is well thought out and easy to use. If you take the time to enter prices for each listed item, it'll estimate your shopping bill before you even set out, adjusting prices to suit weights and quantities you purchase. You can also save lists for re-use. $15, from *www.jewelsoft.net*.

Print from your Pocket PC

A feature that's built into neither Palm OS or Pocket PC, Palm OS users have long had access to at least a limited range of print options, via products such as **PrintBoy**. Already a mature product with support for a good range of applications for Palm OS, this very first Pocket PC version has minimal functionality. There's support for a reasonable (but not comprehensive) range of printers, but printing works only from Pocket Word, Pocket Excel and the Inbox application, all with basic formatting. You can print via infrared, Wi-Fi, serial or TCP/IP, depending upon your printer setup. $40, from *www.bachmannsoftware.com*.

Virtual HP calculators

While most of us are more familiar with standard 'arithmetic logic' calculators, i.e. those that use the '=' button to process a calculation, many users swear by RPN (Reverse Polish Notation) as a better way to work. Hewlett Packard's now-discontinued RPN-based calculator range was always highly acclaimed, and **Pocket 15C Scientific Calculator** is an exact clone of the HP15C on your (sideways) Pocket PC screen, even down to the exact colouring of the buttons. A very capable programmable scientific calculator, with 999 program steps, flags and conditional tests, as well as all the usual, less esoteric trig functions, etc. Versions are also available that mimic the HP10B Business Calculator, and the HP12C Financial Calculator. $13, from *www.lygea.com*.

Free Métro ticket

A longstanding freeware gem for both Palm OS and Pocket PC, **Métro**, now up to version 5, calculates subway/underground routes for more than 240 cities worldwide, with several route updates and new cities added for this version. If you travel by tube either on business or as a tourist, this is exactly what you need. Free, from *nanika.net/Metro*.

Star Ratings:

★★★★★ **Excellent**
★★★★☆ **Good**
★★★☆☆ **Average**
★★☆☆☆ **Fair**
★☆☆☆☆ **Poor**
☆☆☆☆☆ **Dismal**

Interpreting reviews

Quality: the Quality star rating reflects how well the product works, whether it includes all the features you'd expect, whether the interface is consistent and easy to use, and in data-based products also reflects the quality of the information contained in the program.

Value: the Value star rating reflects the value for money of the product, taken within the context of what the product does.

Palm Tungsten T2

Barely nine months since the release of the immensely popular Palm Tungsten T, here is its successor, the Tungsten T2.

Aside from the T2 logo and the colour of the new unit—ironically to aluminium rather than tungsten colour—there's no visible difference between the two models. Even when switched on, most of the changes are most definitely simple evolution, with memory now upgraded to 32MB rather than the previous 16MB, Palm OS 5.2 in place of the original Tungsten's 5.0, and a brighter transreflective display to bring the T2 in line with the recent Tungsten C.

The T2 of course features Palm's unique sliding cover design, which allows the unit to be collapsed into a truly tiny form factor when not using the Graffiti input area at the bottom of the screen. Just like the original Tungsten T, the T2's sturdy metal casing boasts a build quality that stands head and shoulders above the Tungsten C and Tungsten W, though of course without

the benefit of a built-in physical keyboard.

To finally bring the T2 more up to date, it features Graffiti 2 in place of the original gesture recognition system. Though users are showing mixed reactions to Graffiti 2, it does at least allow text to be entered directly onto the main screen rather than the dedicated Graffiti box below it, making it possible to use the T2 almost exclusively with the casing in its closed position.

In usual Palm fashion, there's a business-like software bundle included with the unit and its robust sync cradle, including Documents To Go Premium Edition.

Although a truly excellent handheld, the pricing of the T2 doesn't stand up so well against Sony's budget Clie SJ22 and SJ33 models. If you need Bluetooth then the T2 is a good bet, its 144MHz processor certainly makes it a lot snappier than the budget Clies and OS 5.2 adds a few subtle refinements, but whether all this justifies the extra cost of the T2 will be very much up to the individual. As always, this Palm model is a solid choice for business users, with a huge range of peripherals and business networking and connectivity solutions available to suit Palm's Universal Connector. If you're looking for a compact, quality handheld for business use then the T2 is hard to fault.

Palm Tungsten T2

From: All major handheld dealers

Contact: *www.palm.com*

Price: RRP £300 inc. VAT

Quality:	★★★★☆
Value:	★★★☆☆

Sony Clie NZ90

It has unquestionably become fashionable to incorporate a digital camera in most high-end Palm OS and Symbian devices of late. Until now, these integral cameras have been of uniformly mediocre quality, destined for nothing more than a few 'fun' shots of friends at the local pub or a low-res holiday snap.

The Sony Clie NZ90 changes all that, with a built-in camera that's good enough almost to make it the focal point of the entire device. It's an exceptionally capable Palm OS handheld as well, with integral Bluetooth, a big, bright 480x320 pixel screen, built-in keyboard, removable battery pack, a fast 200MHz XScale processor and a Type II CompactFlash slot for Sony's optional Wi-Fi card.

As a conventional handheld though, the biggest problem with the NZ90 is its size

and weight, which at almost 300g (10.6oz) makes it just about the heaviest PDA on the market today. In fact, it's such a beast that it even incorporates its own integral fold-out desk stand, with a 'sled' type sync/charging cradle that locates into a socket on the back of the unit.

Finished in handsome blue-grey and silver livery, this is one of the best looking handhelds around, and Sony's usual attractive styling is evident throughout. Using the same flip-and-swivel hinged screen arrangements as earlier Sony NX models, the NZ90 can be used either as shown in the photo below, or with the screen folded around to lie flush against the bottom half of the casing. In the former arrangement it's possible to use the miniature keyboard for text entry, and this is a little larger than the one used in Sony's TG50 model (reviewed in the last issue) and with a noticeably better feel. Unlike the TG50 the NZ90 keyboard doesn't illuminate though, precluding its use in dim lighting. In closed position the keyboard is of course covered by the screen section, whereupon it's necessary to use the pop-up virtual Graffiti input area or virtual keyboard at the bottom of the big, rectangular screen.

Disappointingly, this otherwise high-spec device comes with a paltry 16MB of memory, of which only 11MB or so is available for programs and files. There's also the usual Memory Stick expansion, but the CF card slot works only with Sony's proprietary Wi-Fi card by default, though it's possible to get around this with third-party utilities such as CF Utility (*www.eruware.com*). The NX90 screen is excellent and unusually bright, and with almost 154,000 pixels is naturally very good for viewing images taken with the integral camera.

With the big screen and a camera with flash facility, it's no surprise that battery life can be a major issue with the NZ90. After about an hour of normal PDA use from fully charged, the battery is already too low to

Palm OS

allow flash photography and, if using the camera in 'video' mode (whereby it simply takes a string of sequential still images at a high frame rate), you'll get no more than a minute of recording from a full battery.

'Video' quality with the camera is surprisingly good, but for still images it's really quite impressive, at least for a hybrid device such as this. To start with, the camera has a two megapixel resolution, giving it a maximum image size of 1600x1200. Secondly, the 5mm/f2.8 lens is of especially good quality. And finally, the flash is unusually good too, with minimal red-eye and a decent range. As is common with all but the very best (dedicated) digital cameras, there's a tendency for poorly-lit images to appear a bit grainy, but otherwise the NZ90 camera is on a par with many dedicated units.

Unlike a 'conventional' digital camera, the NZ90 provides a suite of built-in image editing and viewing software. The camera software itself incorporates such features as digital zoom, exposure compensation, flash override, white balance adjustment, red-eye reduction, spot metering options, manual focus, and so on. The image editing software can further be used to convert images to monochrome or sepia, or for basic image adjustments.

The camera is best operated with the hinge mechanism folded shut and the screen facing outwards, so the screen forms a huge viewfinder that make it easy to compose shots and check exposure settings. All camera settings can be accessed with a tap of the screen, and the standard-issue Sony jog dial can be used to adjust focus, zoom or exposure compensation.

If you're using the NZ90 as a normal PDA and suddenly need to take a quick snap, a brief press of the 'capture' button on the side of the unit jumps straight to camera (or movie recorder) mode. Annoyingly, it takes around 10 seconds for the camera to initialise from that point, after which you're ready to point and shoot. Predictably the battery takes some seconds to recover between flash shots, and the camera refuses to work at all when the battery is much less than half charged.

With battery drain such an issue, the battery pack is thankfully removable, and heavy camera users will probably be obliged to buy at least one spare. A battery information screen reports the condition of the 'SmartLITHIUM' battery, going as far as estimating the remaining usage time before discharge and even the percent degradation due to repeated charging, though the former is fairly inaccurate in practice.

If it seems that we're devoting little discussion to the basic PDA functionality of the NZ90 then it's because it is only going to appeal to those who are serious about taking digital photographs. If you don't want or need a good quality camera then this model is both too expensive and too bulky. If you need to take quality photographs regularly as part of your job or personal interests then this is the first handheld computer that really fits the bill. Suffice to say that as a handheld the NZ90 is very capable, aside from the ungenerous memory allocation. All the usual Palm OS applications are included, plus Sony's excellent Picsel file viewer (see our TG50 review in the last issue), NetFront web browser and Clie Mail email client.

As a combined camera and PDA, the Sony NZ90 is currently the top of the heap.

Sony Clie NZ90

From: All major handheld dealers

Contact: *www.sonystyle.com*

Price: RRP £598 inc. VAT

Quality:	★★★★☆
Value:	★★★½☆

Sony Clie SJ33

Best described as 'Palm OS handheld meets soap-on-a-rope', the smooth-skinned Sony Clie SJ33 is available in a choice of colours and with an integral carrying cord and plastic flip cover, most definitely designed with the younger set in mind.

As with all of the more budget-priced Sony models these days, this is something of a wolf in sheep's clothing. The integral MP3 player and teenager-friendly styling might lead you to believe that it's all a bit of a toy, but nothing could be further from the truth. For sure, a few economies have been made in the design: with OS 4.1 rather than the latest Palm operating system, a sync cable rather than a full desktop cradle and a modest 66MHz Dragonball processor and 16MB of memory. On the flip side, though, there's the usual high resolution (320x320) TFT colour screen, Memory Stick expansion slot, jog dial, removable battery pack and a claimed 10 hour battery life for audio playback.

There's even a hint of business appeal in there too, with Documents To Go (Standard Edition) bundled, together with a slightly less businesslike Kinoma audio/video player and Astraware's legendary and addictive Bejeweled game included in ROM.

Criticisms of the SJ33 are limited to the flip cover, which although very effective looks like it's a little too easy to break off, and a horrible, piercingly green LED that indicates the unit is powered on. Aside from being completely redundant, the light glows so brightly that it's a major distraction when using the SJ33 in dim lighting.

Otherwise this is a decent Palm OS handheld that would suit anyone with a penchant for colourful, modern styling. It's unusually compact, light to carry, and of course fully compatible with the 15,000 or so Palm OS applications on the market. And if you *do* happen to be a teenager, it's probably *the* thing to be seen with.

Sony Clie SJ33

From: All major handheld dealers

Contact: *www.sonystyle.com*

Price: RRP £181 inc. VAT

Quality:	★★★★☆
Value:	★★★★⯪

Sony Clie SJ22

Sony's new entry-level Palm OS PDA, the SJ22 is an update of its SJ30 predecessor (reviewed in issue 2), and in most respects is remarkably similar to the SJ33 (see opposite). Despite its lower price, the SJ22 sports a handsome brushed aluminium-finish casing and a removable leatherette flip cover that's far less obtrusive than the SJ33's hard plastic equivalent.

Despite looking more like a business machine than the SJ33, it comes without a copy of Documents To Go (or Bejeweled),

and with a slower 33MHz Dragonball processor. With Palm OS applications generally being delightfully undemanding when it comes to both memory and processor power, it's still perfectly up to the task of running almost any software.

This is now the only Sony model without MP3 music playback capability—a perfectly acceptable omission, given the price.

The most obvious competing Palm OS handheld for this budget model is Palm's own Tungsten T. The two are almost identical in weight and size (with the T|T in its closed position) and, although the Sony unit lacks the Tungsten's Bluetooth and MP3 capabilities and has a slower processor, there's otherwise little to choose between the two in terms of overall specifications. Although the Tungsten comes with more bundled software and the newer Palm OS 5, the Sony's jog dial is a worthwhile aid to scrolling and general navigation, and the Sony's TFT screen is clearer than that on the Tungsten T (but identical to that on the Tungsten T2). Taking into account that the SJ22 is around £100 cheaper than the Tungsten T and £150 less than the T2, many users will struggle to justify the extra expense.

The SJ22 is unquestionably superb value for money. Despite the low price, Sony's usual craft for producing quality consumer electronics is evident throughout, and the construction quality of this bargain handheld is on a par with the best on the market.

Sony Clie SJ22

From: All major handheld dealers

Contact: *www.sonystyle.com*

Price: RRP £152 inc. VAT

Quality:	★★★★⯪
Value:	★★★★★

HP iPAQ h5550

The iPAQ 5550 looks and feels exactly like HP's flagship iPAQ 5450, as reviewed in the last issue, and for practical purposes it's little more than that—a 5450 updated for Windows Mobile 2003, a.k.a. the new Pocket PC 2003 operating system (see opposite).

Aside from the OS update, the only other notable new features are the 5550's capacious 128MB of internal memory and slightly faster 400MHz XScale PXA255 processor. As is the norm with Pocket PC, this is nominally partitioned in half, with 64MB allocated for file/program storage and the other half as 'execution' memory, for use by running programs. Such a generous quantity of RAM will be lost on all but power users, who will welcome the ability to keep many applications open simultane-

ously. Still, power users are exactly who the 5550 is aimed at, with its integral Wi-Fi *and* Bluetooth.

It's heartening to see that both Wi-Fi and Bluetooth look like they're here to stay, and thus it's a little odd that this top-of-the-range HP handheld is still the only device on the market that offers both without resorting to a plug-in expansion card. For this reason alone, the 5550 is a very obvious choice for the wireless avant garde.

The 5550 is otherwise 5450 all the way, with a big, bright screen, SD expansion slot and a removable battery pack that's now standard issue across the HP range. As with the 5450, we found the new unit's Biometric Fingerprint Scanner to be more trouble than it's worth. The premise is simple enough: instead of having to input a password to access your handheld, just swipe a finger vertically downwards across the little scanning slit that sits below the five-way navigation button. In practice, we found it frustratingly difficult to 'train' and dangerously unreliable in operation.

At 210g (7.4oz) the 5550 is no lightweight, and its 'classic' iPAQ styling is perhaps beginning to look rather long in the tooth, but this does keep it compatible with most of the slip-on expansion jackets originally designed for the 3900 series and its predecessors. Whether you love or loath the styling, the curved sides of this ageing design do make it exceptionally comfortable to hold.

As always with high-end iPAQs, the software bundle is above average, and includes a number of wireless-related utilities. There's also the Westtek ClearVue Office Suite, which does a good job of viewing complex Microsoft Office files without loss of formatting, all rounded off with a choice of free software from *www.ipaqchoice.com*, amounting to a further £30 or so in value.

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By way of a little more enticement to round off the package, there's 17MB or so of non-volatile 'iPAQ File Store' flash memory for your most important programs and files, a vibrating alarm mechanism, plus the iTask program launcher, a basic image viewing program and backup utility all built into ROM.

In a break from iPAQ tradition, the 5550 is supplied with a leather carrying case in place of the usual tough plastic sleeve. It's a solid, good looking case, but adds considerably to the bulk of this already sizeable handheld, which the old-style plastic sleeves did not.

Though Pocket PC prices have steadily fallen from the days when a top-end iPAQ would leave you almost no change from £700, the 5550 is still a relatively costly handheld. If you need both Wi-Fi and Bluetooth then it represents good value for money, but if not, be aware that cheaper devices are available to meet your needs.

If you need to connect your Pocket PC to a Wi-Fi network for either desktop or Internet connectivity, and also to a Bluetooth mobile phone, PC or other Bluetooth device, this is the simplest solution and an exceptionally capable handheld computer to boot.

HP iPAQ h5550

From: All major handheld dealers

Contact: *www.hp.com*

Price: RRP £516 inc. VAT

Quality: ★★★★½
Value: ★★★★☆

Pocket PC 2003?

Virtually all new Pocket PC models are now shipping with 'Windows Mobile 2003 for Pocket PC' as their operating system, which is really Pocket PC 2003, renamed, apparently, to allow the same moniker to be used for other (non-PDA) mobile devices.

Those expecting a major facelift in this new version of the Pocket PC operating system will be disappointed. Beyond a few cosmetic improvements here and there, and some significant (but invisible) changes under the hood (see page 8), noticeable changes include little more than the following:

▶ Built-in Bluetooth support, plus simplified setup for Wi-Fi connections.

▶ More comprehensive support for ClearType anti-aliased text.

▶ Full support for XScale processors, with a resultant improvement in speed.

▶ Improved VPN (Virtual Private Network) support, primarily for those who need to link to a corporate network system.

▶ More flexible use of 'dialing rules' to support correct use of dialling prefixes when accessing telephone numbers overseas or via different phone networks.

▶ Simplified setup of network/Internet connections via a new Connection Manager.

▶ An improved version of Windows Media Player.

▶ Inclusion of a new image viewing application.

▶ Minor enhancements to Calendar, Contacts, Pocket Internet Explorer and Inbox.

HP iPAQ h2210

HP's latest mid-range Pocket PC, the h2210 sports a completely new casing design, looking suspiciously like a clone of Dell's highly successful Axim X5 (as reviewed in the last issue). At 145g (5.1oz) it's 30 percent lighter than the Axim and a good deal smaller. Further reinforcing HP's obvious decision to attack the Axim head-on, this is HP's first handheld to incorporate a CompactFlash expansion slot in addition to the usual SD port. And, just to be really blatant about things, the 2210 even has black rubberised strips down both sides, again aping the Axim.

Still, those strips *do* make both units exceptionally comfortable to hold and, although the average mid-range PDA user will have little use for a second expansion slot, those of us with a drawer full of CF cards from our old digital cameras or Psion handhelds may find a use for the CF slot.

Bluetooth is sensibly built into the 2210, and if you need Wi-Fi but don't want the bulk of an iPAQ 5550, you can add a CF card-based Wi-Fi card to the 2210 instead.

As usual with HP/Compaq units, there's no jog dial, and the 2210's small five-way navigation button is a little awkward to control, as with the 5550.

Unusually, the 400MHz XScale-powered 2210 ships with a slightly short-shrift 57MB of memory, but with 4MB of flash memory storage to take it almost up to the more common 64MB Pocket PC complement. As with all the new HP models, the 2210 runs Windows Mobile 2003.

A feature that's sadly been omitted from the 5550, the 2210 ROM incorporates the excellent Nevo universal infrared remote control software, as featured on earlier high-end iPAQs. This will happily handle every infrared device in your household, complete with customisable controls, shortcuts and multiple users.

With a similar software bundle to the 5550, minus the Wi-Fi utilities, this is a good value package that fills all the needs of the average Pocket PC user in an eminently lightweight and portable design. Although the 2210 undoubtedly stacks up well against the Dell Axim X5, it's still at least £100 more expensive, leaving the X5 as a best buy for those more interested in price than portability. If you want a stylish and well-specified Pocket PC then the 2210 is ideal.

HP iPAQ h2210

From: All major handheld dealers

Contact: *www.hp.com*

Price: RRP £387 inc. VAT

Quality:	★★★★☆
Value:	★★★⯪☆

HP iPAQ h1940

Replacing the 1910 (see last issue) as HP's super-compact entry level Pocket PC, the h1940 shares almost all the 1910's accolades and criticisms. Smaller and lighter than many Palm OS handhelds, this 120g (4.2oz) iPAQ is for Pocket PC users who want to travel light.

Updated with the latest Windows Mobile 2003, the 1940 uses a new 'budget' Samsung 266Mhz processor, which offers similar performance to the 200Mhz XScale used in the 1910. Memory has been expanded slightly from 48MB to almost 57MB, with a useful 13MB of flash memory storage, oddly much more than included in the mid-range 2210 model.

Expansion is via SD only, in conventional iPAQ style, with Bluetooth built-in. To keep costs down, as with the 1910, there's a synchronization cable in place of the usual desktop cradle, though a full cradle can be purchased separately.

The five-way navigation control is just a little larger than that on the other two new iPAQ models, but works much better, thanks to the separate central actuator button and greater overall responsiveness. It's still inferior to the 'old' iPAQ design, and it's a pity to see so many of the latest Pocket PCs (from several manufacturers) apparently moving backwards in this aspect of usability, with tiny, fiddly controls.

Availability of peripherals is naturally something of an issue with the 1940 and the 2210, as their different casing designs make them incompatible with the traditional iPAQ expansion jackets, even though they all use essentially the same expansion connector. If you're planning to add external keyboards, car adaptors or the like to your handheld then always check the availability of these before choosing a new PDA.

With an overall specification largely comparable to that of top-end Pocket PCs of a year ago, the HP 1940 proves that Pocket PCs can now be just as pocketable as Palm OS handhelds without unduly sacrificing performance. The 2210 offers few real benefits over the 1940 beyond the extra expansion slot, sync cradle and its Nevo remote control software, which is absent from the latter. Many will prefer the styling of the 2210, but the 1940 has the same software bundle and similar specifications, in a smaller package at £50 less.

HP iPAQ h1940

From: All major handheld dealers

Contact: *www.hp.com*

Price: RRP £340 inc. VAT

Quality:	★★★★☆
Value:	★★★★☆

Pocket PC

Toshiba e750

Toshiba is clearly pushing hard to usurp HP's position as the most popular Pocket PC supplier, but when it comes to product styling the company does itself no favours. Every Toshiba handheld since the now-discontinued (but unusually attractive) e570 has been an anonymous-looking rectangular 'box', and the latest flagship e750 is no exception. It has unpleasantly sharp corners, and although the inclusion of a jog dial for navigation is very welcome, it takes the form of a flimsy plastic wheel that exudes tackiness rather than quality.

Beyond aesthetics, this is a powerful Pocket PC with good expansion capabilities at a good price. In common with recent top-end Toshiba models, the e750 comes with both SD and CF expansion slots. It can be purchased in either a Bluetooth or Wi-Fi version, but if you want both you'll have to add one of the two as a CompactFlash expansion card, at extra cost.

Released shortly before the latest batch of competing models from HP, some of the early e750s shipped with the older Pocket PC 2002 operating system (though this is upgradeable), but all units are now supplied with Windows Mobile 2003. Also indicative of its slightly earlier release date, there's 64MB of memory rather than the 128MB that is starting to appear on other top-end models, though its 400MHz PXA255 processor is still state-of-the-art at present. To save a little on battery consumption, the processor can be slowed to half speed if desired, which is still perfectly adequate for the vast majority of applications.

A new feature for Toshiba, the e750 comes with an impressive 31MB of non-volatile flash memory storage, a hard reset-proof repository for your most important programs and files.

The standard Toshiba package includes a well-designed docking cradle, removable battery pack, supple leather slip case and a set of *real*, printed manuals. there's virtually no extra software included though, beyond the usual backup utility, program launcher and picture viewer applications built into ROM.

Overall, it's disappointing that Toshiba still doesn't have a combined Bluetooth/Wi-Fi model to compete with the HP 5550, but otherwise this is an impressive machine. There's a good range of hardware add-ons available, the screen is big and bright, and it's as fast as anything else on the market.

Toshiba e750

From: All major handheld dealers

Contact: *www.toshiba.com*

Price: RRP £395 inc. VAT

Quality:	★★★☆☆
Value:	★★★★☆
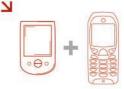
Pocket PC

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integrate

Mobile Phone

Palm OS® Organiser

Web Browsing

Email

The Handspring™ Treo™ is the world's first integrated GSM mobile phone and Palm OS® organiser.

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Choosing
a PDA

What should you focus on, and what should you ignore, in the quest for your perfect handheld? We investigate…

Once upon a time (back in the mid 1990s), the choice of which handheld computer you bought boiled down to choosing between different models of Psion Series 3. Although you can (incredibly, thanks to POS Ltd) still buy a Series 3 model if you really want one, technology has moved on in the intervening years. Jeff Hawkins' creation of the Pilot organiser was a huge landmark, Microsoft muscled in on the scene late in the day, and Psion's software division created Symbian, now almost a household name. As of today, there are over 40 different handhelds or communicators to choose from, with huge variety in form factor and function.

If you're a Psion user desperately looking for a current handheld that can serve the same need, then read on. If you're new to PDAs and unsure where to cast your money, then read on. Even if you're an old hand at handhelds, we'll warrant that you still enjoy the perennially popular "I wonder if my PDA is still the best one for me?" game.

There are three crucial areas to look at in your search: convergence, input and software. Having considered all three, you may even find that the decision's been made for you, with only one device fitting the bill.

It's all about boxes

The biggest decision you'll have to make is one that you wouldn't have had to consider at all a couple of years ago. Yet convergence is the 'in' thing, and for good reason. This is 2003 and virtually everyone carries a mobile phone. Many people also carry Walkmans, MP3 players, cameras, and so on. So why not build them all into the one device, your all-purpose PDA? Sony Ericsson did just this with its P800, which can replace all of the above. Having only one device to remember to bring along and one device to carry around is a huge convenience, as anyone who's tried one of the new breed of communicators will testify. Other communicators include the Handspring Treo 270, 300 and 600, the O₂ XDA and the Nokia 9210i.

The downside of the one-box approach is that your PDA probably won't be the best at each of these extra duties. For example, the P800 doesn't make a very good MP3 player and its camera is a very average 640x480 pixels. In addition, your social life may mean that you really don't want to take a £400 super-gadget with you into pubs and nightclubs—far better to just bring an inexpensive phone with a few emergency contacts on it. And with the

advent of Bluetooth communication, it's becoming easier and easier to connect up separate devices, such as making Internet connections on your Palm or Pocket PC handheld via a mobile phone sitting in your top pocket.

Fastest stylus in the West

Also a very personal decision is which input system to plump for. For example, a journalist might want to only consider units with a useable QWERTY keyboard. Someone with fast natural handwriting might want a handheld that could read this, without having to learn a new system. And a casual user, for whom his or her PDA is mainly a 'read-only' and game playing device, might not care at all, perhaps only inputting a few characters now and then.

Keyboards now come in all shapes and sizes, and aren't necessarily even built-in. The Nokia 9210i communicator has the best keyboard of anything on the market, bar the very expensive NEC MobilePro 900, but the ease with which you can plug in an

external keyboard to a modern Palm OS or Pocket PC handheld means that you have more choice than you may realise. Not all models can be extended in this way, so do check compatibility before making a decision. Miniature 'thumb' keyboards are a recent (and very successful) phenomenon, but make sure you try one out for real— they're not to everyone's taste, especially if you have large fingers. Examples include those on the Handspring Treo range and on the Palm Tungsten C and Tungsten W.

First on the Apple Newton and then on the Pilot and Palm handhelds, Graffiti gesture recognition provides an easy way of inputting text with just a plastic stylus. It may not be quick, but it's simple and elegant and means that the handheld can be made smaller, as there's no need for a physical keyboard. In fact, in most modern PDAs it's possible to write directly on the screen, making the absolute most of the form factor. The latest Palm devices (e.g. the Tungsten T2) come with Graffiti 2 (a.k.a. Jot), although it's relatively easy to hack these back to the original Graffiti system

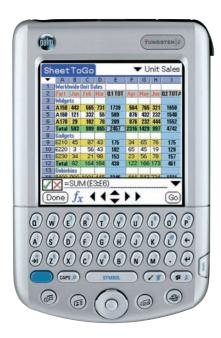*The Sony Ericsson P800 combines PDA, phone, MP3 player and digital camera*

The O₂ XDA is a Pocket PC 2002 device with full phone functionality built-in

if that's what you prefer. Pocket PCs and modern Symbian devices also come with Jot ('Letter recogniser'), making it something of a standard. This is worth bearing in mind if you're planning to try out several devices in turn, with no need to re-learn anything. For proper handwriting recognition, you need to look at the world of Pocket PC, with its built-in Transcriber and add-on Calligrapher software.

Killer applications

Chances are that you decided to buy your first handheld (or upgrade your current one) after seeing a particular application demonstrated by a friend or colleague. This might be something that's built-in (such as a web browser or spreadsheet) or, more crucially, it might have been something by a third party.

Palm's Tungsten C has a 'thumb' keyboard—some love them, some hate them

Sony's Clie NZ90 combines a (heavy) PDA with a capable digital camera

Although a lot of third party applications and games are now available for more than one of the three handheld operating systems (office applications, dictionaries and puzzle games spring to mind), there are still plenty that are more limited, especially those relating to specific subjects and genres. If you have your heart set on a particular favourite, make sure you find out which operating systems and devices it's compatible with. In an extreme case, this alone may decide your choice of handheld computer.

What about specs?

In addition to the above three factors, there will be the usual cosmetic and form factor considerations, i.e. whether you want to own (and be seen with) the device in question. And, if your handheld needs are ambitious, you may need to consider the cost of the expansion card format used. In fact, by now you may already be down to one or two possibilities, in which case we're glad we could help.

But, having emphasised what you should consider in your quest for the perfect PDA, it's worth putting a few myths and misconceptions to bed at the same time. Don't be swayed by the marketeers and their impressive PDFs of specifications—it's almost impossible to get a feel for a handheld computer with a simple list of processor characteristics and software acronyms. For example, a 16MB 100MHz Palm OS device will do many things faster than a 128MB 400MHz Pocket PC equivalent, and will do them more efficiently and with fewer

The Nokia 9210i is a bulky package, but combines a powerful, keyboarded PDA with an integrated mobile phone par excellence

stylus taps. But then Pocket PC hits back with its strong suits of superior multimedia, Internet browsing and Office synchronization.

Screen resolution is something else not to worry too much about, provided your new PDA was made in the last year or so. All the current screens have more than adequate pixel resolution (usually better than that on your desktop computer) and clarity in all lighting conditions.

There is absolutely NO substitute for trying each device out, either by using a friend's, or by asking nicely in a computer store or phone shop. Ask around in web forums and newsgroups, too—try to get a feel for how your intended purchase is being used and what its drawbacks might be.

A dose of realism

Unless each is your killer application, don't be swayed too much by claimed multimedia or Office editing ability, the first is limited by the cost of expansion memory and the second is limited by processor power. Neither are outstandingly practical, no matter what the ads lead you to believe. Once you've watched your handful of

The HP iPAQ 5550 is a powerhouse with comprehensive wireless connectivity

Nokia's 3650 is a good phone at a low price, but isn't the most powerful PDA in town

movie trailers and listened to your couple of album's worth of music, you'll have to wipe them to reclaim disk space and then start over with different content. Yes, multimedia is certainly possible but it's rarely practical and often more of a technology showcase.

Office editing is another good case in point. On all three handheld platforms, manufacturers will try to convince you that you can take your Office documents with you, working on them on the train and at home. It's true that you can take much of the raw information with you, but (with the possible exception of Documents To Go on Palm OS) an awful lot of today's Office advanced formatting and structure is lost or corrupted in the round trip process.

Nothing's perfect

You may find that your wish-list of form factor, features and applications can't be satisfied by any current device, but don't be disheartened. The world of computer and telecommunications technology is advancing at breakneck speed, and your perfect PDA may just be a year or so away. In the meantime, be prepared to accept a few compromises. For example, your favourite game may only run on that *other* operating system, or the handheld that suits your needs now may be just that bit too bulky or it may not use your preferred input method.

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Top Ten Tips:

SPREADSHEETS

Spreadsheets are an immensely powerful tool for your handheld computer. Here's our top 10 tips to help you get the most out of spreadsheeting on the small screen...

Although spreadsheet applications for handhelds vary substantially in both their feature lists and general functionality, there are several tips that are applicable to anyone trying to make the most of worksheets on the small screen. Here are our top 10 suggestions.

1 Auto-summing

Most handheld spreadsheets have an auto-sum feature (normally marked as 'Σ') that will automatically guess the range of cells you want to total, to save time selecting the range manually. Because totalling a column of numbers is the most common function used by most of us, get into the habit of using this often-overlooked feature.

2 Totals at the TOP!

When adding together numbers in a single column, you've probably always put the total at the bottom of each list, which is the normal convention. However, on handheld devices where screen space is limited, it makes sense to put your totals at the *top* instead, which avoids having to scroll down each time you want to see a summary of your figures. This takes a little getting used to at first, but can be a real time-saver. Note that if your handheld spreadsheet application has an 'intelligent' auto-sum feature, you'll probably need to override the suggested range.

3 Freeze your panes

In a similar vein to the above, use the 'split screen' or 'freeze panes' function of most spreadsheet applications to

Accounts						Sheet 1
C2	=SUM(C4:C15)					
	A	B	C	D	E	F
1						
2		Annual total	£4117.00			
3						
4		January	£303.00			
5		February	£267.00			
6		March	£430.00			

Edit
Insert function
Clear
Close

Keeping your totals at the top of columns rather than the bottom could save you a lot of scrolling
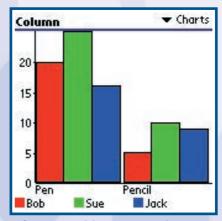
B1				Restore
				£3,250.80
16/12/02	seedingagreement.doc		37	£4.44
17/12/02	platinum.doc		316	£37.92
17/12/02	summary.doc		347	£41.64
17/12/02	nfrrequest.doc		125	£15.00
17/12/02	introduction.doc		259	£31.08
18/12/02	demoform.doc		208	£24.96
18/12/02	websitsum.doc		431	£51.72
18/12/02	business.doc		270	£32.40
18/12/02	technology.doc		242	£29.04
18/12/02	solutions.doc		375	£45.00
03/01/03	EPP-ApplicForm.doc		85	£10.20
03/01/03	EPP-guidelines.doc		257	£30.84
03/01/03	PricingProgram-SPQ		196	£23.52
03/01/03	PricingProgram-appfr		171	£20.52
03/01/03	PricingProgram-Matrix		276	£33.12
03/01/03	DevelopmentFunds-M		851	£102.12
03/01/03	TermsCond		756	£90.72
03/01/03	EnterpriseWeb		307	£36.84

New ▲ Edit View Format Tools

By removing toolbars together with row and column headings, you'll be able to see a lot more of your data on screen

If your spreadsheet supports them, a chart often summarises data more efficiently than a string of figures

keep your row and column headings firmly anchored at the top and left edges of the page. If you use the tip above to keep column totals at the top of the worksheet, these can be locked in the 'frozen' cells at the top of the page together with the headings.

4 Clear the clutter

Many spreadsheet applications allow toolbars, status bars and even the lettered/numbered row and column headings to be hidden if not required. This isn't usually a good idea when you're first creating a worksheet, but once the main body of data is in place it's a great way to get more information on screen at a time. Many spreadsheet programs allow you to specify which of these items are displayed on a sheet-by-sheet basis, so try experimenting to see what works best for
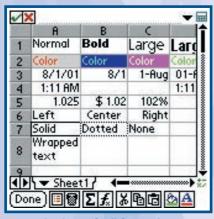
each type of sheet. Some programs have a blanket 'Full screen' option, that will toggle all the screen clutter on and off at a stroke.

5 Keep them small

To help minimise the need to traverse huge worksheets on the small screen, try to optimise the layout of your sheets to suit your handheld. If your spreadsheet application supports multi-sheet workbooks, as almost all do nowadays, try to break down your data into manageable chunks that will be easier to view in separate sheets of a workbook. As an example, you may like to break down monthly sales figures into separate sheets for each period.

You can usually link totals between worksheets in a given file, so it's easy to add a summary sheet to the workbook that contains totals carried over from all the individual sheets. Consult your spreadsheet's documentation for details.
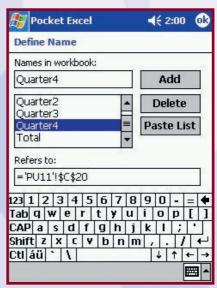
Restrained use of cell formatting options and colours can make your worksheets a lot easier to read

Named cells and cell ranges can make sheets easier to navigate if your spreadsheet application supports them

6 Fast find

If you're looking for a particular piece of information on a big worksheet, don't waste time scrolling around to find it. Use the spreadsheet's built in 'Find' function to search for the required text. Some spreadsheets also have a 'Go to' feature that allows you to jump straight to a particular cell reference or named range.

7 Make use of templates

Because it will typically take longer to set up and format a spreadsheet on your handheld than it would on a more full-featured desktop spreadsheet application, try to re-use your spreadsheets as much as possible. Save a copy of any sheet that you may want to re-use at a later date, preferably with all the cell data (but not formulae) removed, ready to simply plug in your new numbers. Many spreadsheet programs have the option to 'protect' individual cells. This can be used to 'lock' the contents of all but the cells that you wish to remain editable, and thus avoid inadvertently overwriting the contents of a template.

8 Add a little colour

Consider using colour and/or shading to make your data clearer where appropriate. Totals are easier to find if they're in bold or coloured, and related blocks of figures are easier to make out if they're either highlighted with a (subtly) coloured background or enclosed with cell borders. Don't go too far and make your worksheets look lurid, but restrained use of colour can make a world of difference to readability.

9 Cell naming

Some handheld spreadsheets give you the option to name cells or ranges to make them easier to navigate. It's a feature that's worth taking the time to learn if you create a lot of sizeable worksheets, as when you move to a cell, you're likely to get a meaningful description in the formula bar, such as '=sales-discounts' rather than

'=D227-H227'. Just as useful, you can usually use these names in conjunction with the Find facility, searching for "sales_total" rather than scouring the sheet manually. Cell and range naming works differently from application to application, so check your documentation for details.

10 Protect your sheets

Because your handheld is more prone to loss than a desktop computer, be sure to password protect any spreadsheets that contain sensitive financial or other data. Some spreadsheet applications allow you to do this for separate worksheets (or workbooks) from within the spreadsheet application itself. If not, password protect your entire machine (and keep the files in internal memory) if it contains figures that you'd rather keep private. See the article on the following page for more details on securing your data.

Locked away

Concerned as to whether your personal information is secure on your handheld computer? Looking for a practical way to keep your data safe without making it too inconvenient to access your own information? We advise...

Ten years ago, most of us could probably keep in our heads all the PIN numbers and confidential information needed for our lives. And anything not in our heads was probably safe enough on paper, back at home. Skip ahead to today and the ever-increasing need for web site passwords, PINs, reference numbers and software registration codes means that we've long since passed the point at which the human brain can no longer cope. Add in the rise in the number of people owning palmtops and smartphones, plus those who want to be able to work with confidential office documents on the road, and it's obvious that there's the potential for major security problems. What if your handheld gets lost or stolen? You could be left without all your vital information, and the finder would have access to it instead.

Total lockout?

Despite the best attempts of manufacturers to provide workable password schemes for their palmtops, in our experience it's rarely practical to keep your unit locked with a PIN or password. Do you *really* want to have to enter it every single time you turn the handheld on? 20 times a day—50 times a day? Such a scheme is doomed to failure in the real world. And of course power-on passwords don't protect the contents of memory expansion cards, which can simply be removed and accessed in a different computer.

A better way

For most people, a better security model is to keep your handheld itself 'open' and just lock down the bits that really need protecting. For example, it's unlikely that a thief would benefit much from your calendar or contact listing, but he'd certainly be very interested if he found your credit and debit card details. Manufacturers have tried to help out with special security settings. For example, in Palm OS you can hide or mask records marked as 'Private', with the system password being required to reveal their contents. Although well intentioned, the cracking of the system password in Palm OS is well documented, and in any case the corresponding files on the desktop are stored in plain text format.

For most of us the solution on all platforms is to use third party software or applications with built-in password protection/encryption features to handle our handheld security, tackling the problem with a bit more endeavour.

Scramble!

Encryption is the key, of course: the scrambling of letters and numbers in a manner unique to the characters in a password of your choice. The longer the password you choose and the more complex the encryption algorithms used by your software, the more secure your data and documents will be. And it goes without saying that passwords shouldn't be 'real' words or guessable names picked from your pool of family and friends. You need never worry again about having to remember lots of passwords and PINs—with a properly set-up encryption system, one password is all it takes to open up your master file containing all the rest of your secrets.

When selecting encryption software, make sure you also consider access to your data and documents in the absence of your handheld. For example, losing your palmtop could be a major inconvenience, with limited access to your data until you purchase a new handheld and restore your last backup onto it. If the software you select doesn't have a desktop counterpart, make sure you periodically copy your data over by hand and archive it away somewhere safe.

Built-in security

Note that some mainstream applications incorporate their own built-in password protection for selected files. These include various third party database programs and some spreadsheets, which provide the option to encrypt and password protect any or all of their data files.

Symbian solutions

For both Psion palmtop and Nokia communicator owners, one of the most adaptable solutions is the freeware **FreeCrypt** (*www.freepoc.org*), which can be used to securely encrypt a document of any type, decrypting it when needed and then automatically re-encrypting it when finished with. For example, a Word document encrypted with FreeCrypt could play host

About to encrypt a document file in FreeCrypt on the Nokia 9210

Code Vault is a ready-made password information repository for the Nokia communicator

For the P800, Handy Safe provides convenient and comprehensive encryption for secret data

to all your sensitive information, perhaps arranged under outlined headings for ease of access. And of course, standalone word processor documents, spreadsheets and even databases can all also be locked down in the same way.

Psion owners should note that there is built-in password protection and basic encryption in both Word and Sheet, although this isn't as strong as typical third party solutions. Users of the popular Macro5 utility should note that the **NDCode** macro (*website.leidenuniv.nl/~linthorsthjm/exabetal*) can selectively encrypt single phrases within documents. After input of a password, the phrase is offered for editing or copying, followed by re-encryption back into the document.

For communicator users prepared to dip into their wallet, there's plenty more on offer. In

SecureDrive (*www.symbianware.com*), you nominate a folder to be encrypted and it's then hidden away. Once 'remounted' and the password entered, it can be used as just another disk drive. Each of the three third party database applications for the Nokia 9200 series include password protection and/or encryption and can be used as the basis for a secure information store, such as **SmallBase** (*corisoft.free.fr*), which is also available for Psion handhelds. **Code Vault** (*www.epocware.com*) does most things for you and has predefined categories and fields, though there's plenty of flexibility to set up your own. Code Vault's developers also offer **Handy Safe** for the Sony Ericsson P800, a similarly secure database which is also conveniently available in synchronized PC Desktop form.

Palm OS solutions

Encryption software for Palm OS is mostly based around this concept of a secure database to hold your personal passwords, credit card numbers and access codes. There are a large number of these available, many coming with properly HotSynced desktop versions. **eWallet** (*www.iliumsoft.com*) and **SplashID** (*www.splashdata.com*) are perhaps the two leading examples of the genre. eWallet also has a freeware brother, **FreeWallet**, which has all the same features but is limited to five 'cards'. We also have a soft spot for **Secret!** (*www.linkesoft.de*), mainly because of its free-form nature and its likeness to the standard Memo Pad, meaning that beginners who start entering confidential information in the standard Palm application can simply copy and paste lengthy entries wholesale into Secret! later on.

If you need security for Office documents, images, etc. then **TealLock** (*www.tealpoint.com*) can encrypt data files for any (or all) selected applications, together with up to six specifically-named files. However, the encryption only takes
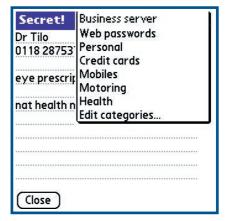
SplashID is a prime example of an encrypted database for Palm OS

Secret offers everything, from free-form content to HotSynced desktop

place when the unit is switched off, and has to be used in conjunction with a power-on password. Several similar applications exist, but most use a similar regime.

One notable exception to the above is the industrial-strength **MovianCrypt** (*www.certicom.com*), which encrypts selected files as they are closed, using processor idle time to take care of the encryption process without adding undue delay, and requesting the entry of a secure 'key' whenever the files are re-opened.

For applications with built-in encryption, **HanDBase** (*www.ddhsoftware.com*) and **SmartList To Go** (*www.dataviz.com*) offer password protection for their database files, and third party spreadsheet applications **TinySheet** (*www.iambic.com*) and **MiniCalc** (*www.solutionsinhand.com*) both allow password protection of selected worksheets/workbooks.

It's worth mentioning that there used to be a breed of utility (ReadThis! was a good example) offering on-demand encryption of plain text in any application, but these appear to have died out in recent years. For on-the-fly encryption of selected items of text that you want to keep private,

Memo PLUS (*www.handshigh.com*) is an enhanced Memo Pad application which provides easy encryption of individual memo items. If you don't need all the features of Memo PLUS, consider the free **CryptoPad** (*www.freewarepalm.com/utilities/cryptopad.shtml*).

Pocket PC solutions

For storing passwords, credit card numbers, etc. there are a number of options, including the Pocket PC version of **eWallet** (*www.iliumsoft.com*) and the very similar **Code Wallet Pro** (*www.developerone.com*), both of which have competent PC desktop counterparts.

Pocket Excel incorporates its own password protection that can be applied to any sensitive workbooks. Although Pocket Word has no equivalent, the enormously capable **TextMaker** word processor (*www.softmaker.de*) does, though the feature is rather buried within the 'File | Properties...' menu option. As with Palm OS, the Pocket PC version of **HanDBase** (*www.ddhsoftware.com*) offers full password protection/encryption of its database files.

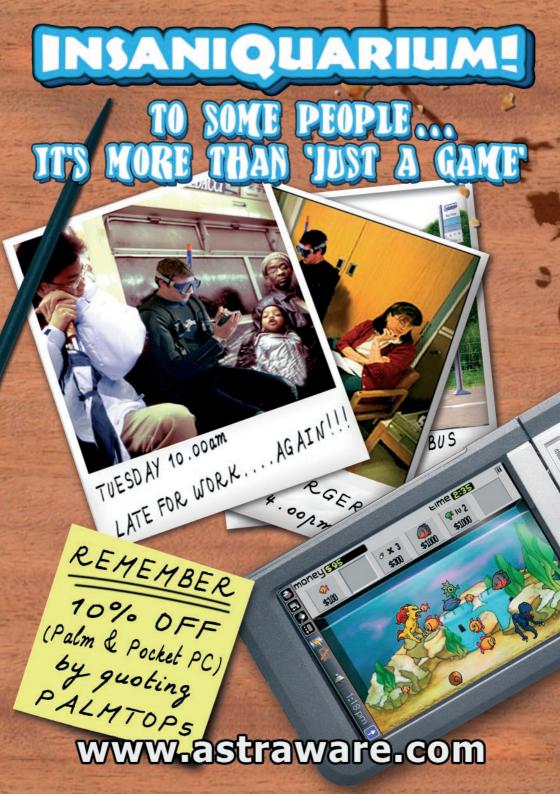*eWallet is a good place to store all your credit card details, passwords, web logins and bank account details*

FileCrypto cleverly makes your secure folder(s) appear as separate drives, and makes them invisible on encryption!

For protecting a selection of chosen files, **Resco File Explorer** (*www.resco-net.com*) is a top-notch replacement for the lacklustre built-in File Explorer, and can encrypt *any* file(s) or entire folder contents extremely quickly. Files are decrypted by tapping on their (padlocked) icon from within the Resco Explorer and entering the decryption password at the prompt. This regime offers quick and easy protection for absolutely anything on your Pocket PC, with the only downside being that you have to perform the encryption and decryption process manually from the Resco file manager rather than directly within each application.

Another good scheme is to use **FileCrypto** (*www.f-secure.com*), available in a free version for personal use, which cleverly treats one or more user-specified folders as separate 'drives', which can be used to store any data files relating to any number of applications. Although the folders aren't encrypted until they're selected from the FileCrypto application, doing so cleverly makes the folders appear invisible from within any file manager program or file selection dialogs.

MovianCrypt (as described in the Palm OS section above) is now also available for Pocket PC, and provides a very robust solution for those willing to invest a little more money in their security software.

Make it work!

No matter what method you use to keep your senstive data safe, be absolutely sure to choose something that works for you *and stick to it*. Your data is only safe if your chosen security measures are always in place.

The GAME ZONE

The hottest new games on the handheld scene...

All of these games are either new or have been significantly upgraded recently. Although colour screenshots are shown where possible, most games also work in monochrome.

YAHTZEE (Palm OS/Pocket PC)

There can be few games that have spawned a greater number of unauthorized (and dubiously named) clones than Hasbro's Yahtzee dice game. Itself really a virtual copy of the classic Poker Dice, but played with standard, spotted dice, this official, authorised version is beautifully crafted, with slick, animated dice rolls, realistic sound effects and clear, easy scoring. Not just the only official version, but almost certainly the best of the bunch. $20, from *www.handmark.com*.

MEDIEVAL HEROES (Palm OS)

Although a far cry from intricate and realistic battle simulation games such as Age of Empires for Pocket PC, there are a number of less memory hungry campaign-style battle games for Palm OS that are still a lot of fun to play. Medieval Heroes, in its new hi-res version 1.5, strikes a nice balance between complexity and playability, with delightfully crafted graphics and plenty of depth. Make alliances, scout the surrounding area and expand your kingdom into adjacent regions. When an encounter arises, battles can either be resolved automatically, or you can manually control the movement of each swordsman, archer, knight and siege engine under your command. If set to automatic, you just sit back and watch as your forces advance to the enemy and engage in battle. $15, from *www.medievalheroes.com*.

CHAMPIONSHIP CRIBBAGE (Palm OS/Pocket PC/Symbian)

Part of a range of classic card games, this is a well-rounded implementation of Cribbage that runs on Palm OS, Pocket PC, Sony Ericsson P800 *and* Nokia 9200 series (plus Windows PCs), Championship Cribbage can even be played via wireless connections between devices. All versions use AppForge Booster in order to run, which rather complicates the installation process for Palm OS and Symbian devices. The interactive tutorial built into the game is probably insufficient for the pure novice, but once you've mastered the rules there's plenty of configurability, with five difficulty levels. The interface is clear and easy to understand, with excellent on-screen prompts to confirm exactly what's going on. $20, from *www.dq.com*.

SONIC THE HEDGEHOG (Palm OS)

Die-hard fans of the original Sega platform game will doubtless prick up an ear at the thought of this 'official' version for Palm OS. Beyond the obvious retro-appeal though, the low-res graphics give the game a decidedly dated feel, even though the action is fast, furious and everything, including the sound effects, is authentic. Thankfully, the Palm OS world is awash with far better games, many at half the price or less. $20, from *software.palm.com/sega*.

BUGLORD (Palm OS/Pocket PC)

Ever fancied yourself as a heroic spider, worker ant or even a bloodsucking tick? Even if the idea doesn't immediately appeal, BugLord is in fact a detailed and highly engrossing simulation game. Collect resources to build your colony, complete with mercenaries and assassins. Battle with neighbouring bug colonies as you forage for aphids and pebbles, and generally expand your insect empire over 15 different missions. Aside from being a novel take on the RTS concept, it's all quite amusing, with spiders that can be 'upgraded' to tarantulas, blood-filled ticks that explode in the enemy camp, and cargo beetles that serve, predictably, as 'drop ships'. It's nevertheless a game to be taken seriously though, with good graphics, masses of depth and a helpful learn-as-you-play interactive tutorial to help get you started. This is a game you'll need to spend hours on rather than minutes, but if you like grand-scale simulations, BugLord offers many hours of engrossing and challenging play. Available for Palm OS, Pocket PC and Windows PCs (Palm version requires 66MHz processor minimum). $20, or $15 for Windows version, from *www.buglord.com*.

TETRIS CLASSIC (Palm OS/Pocket PC)

Another 'official' title that's recently been ported from Palm OS to Pocket PC, Tetris Classic is a faithful copy of what is probably the best-loved puzzle/arcade game ever. Move and rotate the falling pieces so they make complete, gap-less rows as they drop to the bottom of the screen. There's no Russian music to accompany this version, but you'll find the familiar Russian-themed photographic backdrops, from the Kremlin to Soyuz spacecraft. Very simple, but fiendishly addictive. Also available as Tetris Classic Game Pak, which includes PocketChess, Checkers, Backgammon, Colors and four variants of Solitaire, which make the collection well worth the extra money. $20, or $30 for the Game Pak, from *www.handmark.com*.

GTS RACING CHALLENGE (Palm OS/Pocket PC)

The vast majority of Astraware's game titles have now been ported from Palm OS to Pocket PC, and GTS Racing Challenge is one of the latest. Race your Formula one, sports or coupé car against eight opponents over 32 tracks at eight venues. The graphics are slick, smooth and colourful, but ultimately the button-only steering control is a lot less intuitive (or comfortable) than the technique of simply sliding a stylus across the screen, as used by the classic Palm OS Race Fever game. Still, GTS Racing Challenge has a real feel of knuckle-whitening speed, and if you can keep your fingers on the buttons long enough without getting cramp, you can compete in a full eight race championship—a true test of endurance. $18, from *www.astraware.com*.

ATOMIC CANNON ELITE (Pocket PC)

At first glance this looks like little more than mindless mayhem and destruction, with your small group of super-tanks fighting it out against an enemy with similar armaments. With more than 50 weapons to choose from, 25 attractive scenery backdrops and various weather conditions, the game is a visual feast though, and with an array of dastardly weapons such as 'Plutonium Nuke', 'Blow Fish', 'Anthrax' and 'Grave Digger', the gameplay is akin to an on-screen firework display. The weapon effects are often a little ridiculous, blowing huge chunks out of the terrain, but it *is* just a game, and the variety of weapons at your disposal ultimately turns Atomic Cannon into a memory exercise, as you struggle to remember the correct power and aim settings to achieve a direct hit on the opponent. A fun, colourful game, with a PC version also available. $20, from *www.isotope244.com*.

MAHJONGDRAGON (Pocket PC)

The ever-popular Mahjong comes to Pocket PC—the memory game, that is, rather than the traditional multi-player strategy game. Remove pairs of matching tiles from the play area until either they're all gone or you run out of valid moves for the exposed tiles. All very simple, but this version adds a variety of attractive oriental photo-backdrops, 11 tile layouts and either normal or timed game optio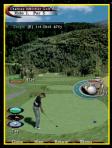ns. The game pieces are a little small, making life a little hard for those of us with less than perfect eyesight, but otherwise it's a slick implementation—complete with optional music and sound effects. $10, from *www.clickgamer.com*.

LINKS (Pocket PC)

If the thought of a relaxing round of golf around an attractive course appeals to you, then look no further. On the other hand, if you want edge-of-your-seat tournament excitement and rapid-fire gameplay in your golf game then Links will disappoint. This is very much a simulation (and thus suitable only for those who already know their Mulligans from their Sand Wedges), and quite superbly implemented along the lines of the PC title of the same name. From the photorealistic graphics and animation to the comprehensive ball control and interface, there's little to fault this 'good walk spoiled'. The ultra-realism even extends to timing and sound, with ball flight and settling taking a lengthy 20 seconds or so and with only birdsong to keep you company on your round. Adding extra courses and golfers does start to add expense, though. $25, from *www.hexacto.com*.

COBRA ATTACK (Symbian Series 60)

The world of Series 60 gaming reaches new heights with this combat flight simulator, running under the ever more impressive Magic Game Station engine. Although not a true simulator (you can't do rolls and acrobatics), there's enough freedom to dogfight with other aircraft and blast away with chain gun, rockets and Hellfire missiles. You can play with a friend using Bluetooth, too. Great fun. $15, from *www.nmprod.com*.

BLOCKFALL (Nokia 9200 series)

The ultimate Tetris clone for the Nokia 9200 series, Blockfall lets you play with your Communicator either in normal orientation (with the play area in a minuscule window at the centre of the screen) or, much better, in 'sideways' mode, with the play area taking up around two thirds of the screen. There's a crisp, photographic backdrop in usual Tetris fashion, though only a few images are included. There's no opportunity to reconfigure the game controls, but they work very well as pre-configured, using the four soft keys at the right of the screen. $7. from *shop.my-symbian.com*.

Have palmtop, will travel . . .

Palmtop computers should be the perfect travel companion, but without a little forethought there's always a risk of disaster—here's how to avoid travel trouble...

While it's natural that you'll want to take your handheld computer with you when travelling, not every 'road warrior' leaves home best prepared for computing on the move. Having been caught out more than once while on the move ourselves, here are a few pointers to help keep you running smoothly and minimise the likelihood of finding yourself miles from home without your vital data.

Mind the batteries

Most modern devices have built-in rechargeable battery packs, but if your handheld runs on standard alkaline batteries you're unlikely ever to be caught short, as the ubiquitous AA and AAA batteries are available from all but the most exotic locations worldwide.

Plan to take an adequate supply with you if travelling to remote regions though, and keep a spare set in your pocket or hand luggage for emergencies. Remember that it's best to keep them stored in their protective packaging until needed, to help prevent them becoming accidentally discharged.

If you're on a long plane or train journey, be sure to pack an extra set of batteries in case the ones in your palmtop die mid-journey. There's nothing worse than settling down to get lots of work done on a 12 hour flight, only to find that your only spare batteries are tucked into a corner of your suitcase in the cargo hold.

If your handheld has a built-in rechargeable battery pack then you'll need to plan much more carefully. Always give your PDA a full charge before setting out on a long journey, and buy a travel adaptor so

you can recharge in your hotel room every night. Airports usually have a couple of mains sockets in the departure lounge, so you may be able to save the day with a quick top-up there if you get caught out.

Adaptors and chargers

Most mains adaptors supplied with handhelds are now multi-voltage, so you may need nothing more than a simple adaptor to fit your mains plug into a foreign socket. If your mains adaptor/charger is an integral part of the sync cradle, you'll either have to unplug the whole thing from your desk and haul it around with you, or buy a dedicated travel adaptor. Check your cable setup carefully though, as it's often possible to separate the charger part of the cabling from the sync cradle, such as with many Sony, HP and Toshiba handhelds.

If you're likely to be travelling to some-where so remote that mains power is scarce, perhaps if you're backpacking, you'll need to invest in a special unit that either recharges your handheld from a battery-powered cradle or via solar power. Proporta (see page 92) offers a huge range of travel adaptors and a suitable solar charger. If you do go for a solar charger, don't forget that although they're a great idea in principle, you'll be reliant on a little sunlight in order to do any useful amount of charging. In most cases you'll need to have an alternative power source as well as the solar unit.

Travel charging

Charging while on the move may be an option whether you're flying or driving to your destination. Many airline seats now have charging sockets designed primarily for laptop computers, but you can get an adaptor to run and charge your PDA from this kind of socket. You can also buy cables that will charge your PDA directly from the USB port of a laptop or desktop computer. Not only will this save you having to find extra free power sockets in your hotel room, but in flight you can use your laptop as an emergency charger for your PDA. While driving, just plug a suitable adaptor into the car's cigarette lighter socket—again, see *www.proporta.com* for all the above.

Removable rechargeables

An increasing number of handhelds are now supplied with rechargeable battery packs that are removable (once again, Sony, HP and Toshiba). Spare packs tend to be horribly expensive, but they're a good investment if you travel a lot and regularly need to work for long periods without access to a charging facility. Keep your spare packs fully charged when not in use, and be sure to keep their electrical contact areas well protected to prevent discharge or short-circuiting in transit.

Backups—your lifeline

Often neglected while on the move. If your palmtop is lost or stolen there's little you can do (short of taking a spare machine with you or buying a new one while you're away), but if it contains data that's vital to your travels, such as hotel bookings and itinerary information, you really should consider some kind of contingency plans. Here are a few options:

▶ Print out copies of any data that you really can't do without, and tuck them into a corner of your luggage, just in case. Don't leave this in the same place as your palmtop, as losing one through theft or disaster will usually involve losing them both. If any of the printouts include sensitive data then take the same precautions as you would with any other private papers. Use your hotel's safe deposit box if necessary.

▶ If you have lots of important files that you can't realistically make hard copies of, you need some kind of backup that you can take along with you, so you can access these from a replacement or spare machine. Consider buying a spare memory card and either storing a copy of important files on the disk, or better still, perform a complete backup of your handheld to the disk. Pocket PCs usually include software to allow full backups to be made to a memory cards. For most others you'll either need add-on software to do this or will have to copy files manually using your built-in file management software.

▶ Be sure to keep the backup disk in a different location to the handheld at all times, to reduce the likelihood of both getting lost together. A spare memory card is also the easiest way to make backups of the work you do while you're actually travelling. Without such backups, anything you create while away from base is always in danger of being lost.

▶ If you're travelling on business, you may well have access to a PC at your destination. Many people are understandably reticent to let you install software onto their computer, but if you travel with a disk containing a backup of your important data plus a copy of your sync software and your sync cradle or cable, you can always ask permission if you get in a real fix. If you carry a backup on disk, remember that CDs are generally more robust than magnetic media such as floppy or Zip disks, provided they're suitably protected with a proper case.

▶ If you have email access while travelling, you can send copies of important files to yourself (perhaps at a different email address), then leave them on your service provider's server as backup copies. This can be a cheap and effective solution unless you're creating lots of large files.

These precautions may seem excessive, but losing vital files while on a business trip can spell disaster, so be sure to take whatever precautions are appropriate for your own circumstances. Always assume that the worst thing that can happen is for your PDA to be lost, stolen, or damaged beyond repair. In some countries you may be able to buy a replacement machine right away or even get a faulty or damaged one repaired, but that's not always the case.

Reset recovery

Though generally unlikely, there's always the possibility that you might suffer a hard-reset while travelling, which would leave your PDA in perfect working order but with all the data erased from internal memory. You'd then be without not only the data that was previously stored in RAM, but also any third party applications you'd previously loaded. This is another good reason to perform a complete backup of your internal memory to a storage card.

Memory cards (such as CompactFlash, SD, MMC and Memory Stick) are usually extremely reliable, but they can become corrupted. As cards are becoming cheaper all the time, serious travellers might wish to consider getting a second card to hold an exact copy of what's on their primary card. Again, this may seem like an excessive precaution, but consider whether your expansion card contains items you couldn't manage without. You may be able to avoid this situation altogether by carefully keeping your 'core' of vital programs and data on internal memory instead.

Hard copies

Most modern handhelds don't have a printing facility built-in, instead relying on a desktop PC connection to handle hard copies. Fax software is available for virtually all handhelds though, which normally allows you to send a faxed copy of data 'printouts' from selected applications. You can use this facility to fax documents to yourself at your hotel, thus providing a paper printout.

Making a connection

If your handheld is suitably equipped, you may be able to make an Internet connection via a Wi-Fi hotspot, perhaps in an airport terminal or even on the plane, though the latter can be frighteningly costly. If you need to connect to the Internet on a regular basis while away from base, Internet Cafés are probably a more economical option than trying to use your PDA. If your handheld either has an integral mobile phone or you're connecting to a standalone mobile via Bluetooth or infrared, check out the tariffs for the countries you're visiting beforehand and make sure you're willing to accept the costs involved. In particular, some countries have an exor-

bitant surcharge for GPRS data, so if you're using GPRS for a faster connection, check overseas prices carefully first.

It's still possible to connect an old-style 'landline' modem to most handhelds, but it's all extra baggage and many hotels still charge high prices for international landline calls.

Of course, if your Internet service provider offers a local number to call in your destination country then the issue of call costs is largely moot, but most do not, and if you're accessing your office-based corporate network then there's generally no alternative to an international call. Most major ISPs do offer a 'webmail' service though, which allows you to handle all your emails through a web browser at any Internet Café.

Mobile connections

If you have a PDA with an integral phone (or even a separate phone that you're connecting to via Bluetooth or infrared), make sure that you've enabled 'International roaming' with your phone service provider, and that adequate signal coverage is provided in the countries and areas you're visiting. Also, unless your PDA/phone is 'tri-band', it won't work in certain countries. Check your instruction manual for details.

Ensure you insure

If you travel regularly with your handheld, it's an especially good reason to have it properly insured against loss or damage. Whether you purchased insurance from the dealer who sold you the handheld or have it covered as part of your house contents insurance, check your policy carefully to be sure that it's fully covered for travelling.

Getting to grips with

HanDBase 3

The fourth part of our beginners guide to using this powerful database application for Palm OS and Pocket PC

Having gone through some of the basics of setting up a simple database over the past three instalments, we'll now look at how to make your database look much more attractive by using the 'HanDBase Forms' application that's included in the 'Pro' version of HanDBase. If you don't currently have the Pro version, we recommend that you upgrade to this so you can take advantage of this powerful facility.

Adding a little panache

Although the basic version of HanDBase is capable of creating perfectly usable databases, the presentation is limited to basic black headings and text on a white background. By using the powerful HanDBase Forms application it's possible to replace our data entry/editing screens with something altogether more attractive, clearer to read and generally more user-friendly.

It's possible to create and edit your forms directly on the handheld using the 'HanDBase Forms' (Pocket PC) or 'HB Forms' (Palm OS) application, but the Windows desktop version is included in the 'Pro' package, and this is a more comfortable way to work, as you're of course looking at a much larger screen.

First off, you'll need to open the database that you want to create the form for on your PC desktop. This will be the synchronized copy that resides on your PC, *not* the one on your handheld. We'll use the CD collection database that we've been working on over the past three instalments, so to open this file, select the 'File | Open...' menu option, then choose this database from the list. If it doesn't appear in the list, hit the 'Browse Files' button and navigate to the file on your PC hard disk from there.

From this point on, the Forms Designer presents a rather unintuitive screen, showing a few blank dialog boxes and not much else. Don't panic though. Although the Forms Designer isn't the most user-friendly piece of software ever made, it's really quite simple to use once you've learnt your way around.

To create our first form, click on 'New' in the 'Select A Form' dialog that should appear to the left of your screen. This will pop-up a new window from within which we'll create and position all the elements of our first form. Once the 'New Form' window has appeared, tap anywhere in the white space within the window, and you'll see that the 'Form Details' area to the right of the window will show a set of attributes for your current window. This is the place where you can view and change all the characteristics of whatever element

you've currently got selected in the 'New Form' window.

Form basics

In the Form Details box, we'll first set the overall settings for this first form, which will appear on our handheld in place of the rather unattractive record view that appears at present (see screenshot below). At the top of the box, we have an item labelled 'Form Name:'. This will appear at the top of our form on the handheld if the 'Title:' field below it is set to 'Form Name', but otherwise will just appear in this window for our reference. We're not going to have it show on the handheld in this instance, but type "Data entry" into the box anyway, to remind us that we're working on our data entry form. Next, tap on the downward arrow to open the drop-down box to the right of the 'Title:' line. This gives us the option to show either the form name at the top of the screen, as described above, the word 'HanDBase', no title at all, a title that we enter ourselves, or, perhaps most usefully, the record number we're currently working on. This last option is labelled 'Record X of Y', which simply means that if

The standard HanDBase editing screen. Functional, but rather rudimentary

the current record we're viewing, editing or creating is the 44th record out of a total of 186 in the database, we'll see '44 of 186' displayed at the top of the screen. For our example, choose this from the five available options.

Beneath this, there are options for whether this form will appear as the default when we open new records or edit existing ones in our database. If we want to use a different form for new records or editing (or even no form at all, using the default HanDBase interface instead), we can do this. Also, because the PC desktop application, Palm OS and Pocket PC handhelds all use different screen sizes, this gives us the option to use a different for each platform, which we'll look at in a future instalment. So, for this example, simply leave all six of the 'Start Form' options checked.

To illustrate the use of colour, tap on the 'Form Color' box that appears further down the screen, and set this to any pale colour other than white. Beneath this, the 'Show Buttons' options allow us to individually disable and change the appearance of the four standard editing buttons that appear at the bottom of the screen on Palm OS handhelds (see screenshot once again). If you're using a Pocket PC, these buttons aren't applicable, as their functionality is provided via icon bars or menu options. If you're using a Palm OS handheld, change the 'Show Buttons:' option to 'Graphic Buttons' rather than 'Text Buttons', which will give them a nice, sculpted grey appearance rather than appearing as plain white rectangles.
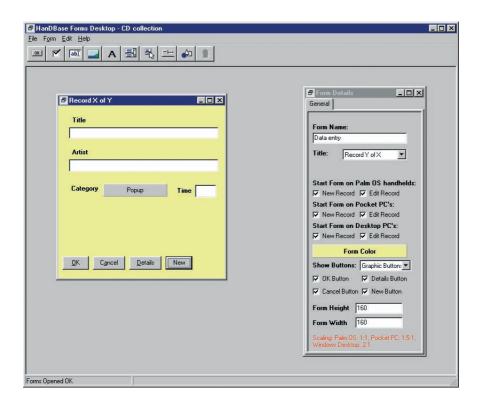
Finally, if you're using Palm OS then leave the 'Form Width' and 'Form Height' options at the bottom of the 'Form Details' screen set at their default values of 160x160. If you're using a 320x320 screen, the software will automatically double up each pixel to fill the screen. For Pocket PC, set the value to 160x240, which will then be

automatically scaled up to fit your 240x320 screen.

As we wish to see full details of all four fields of our database in this form, let's work through creating each one in turn.

To create a box where we can display and edit the first field of the database, tap on 'Text Entry Control' icon (the one with the letters 'AB' on it) in the toolbar at the top of the screen. This will make a blank rectangular box appear in the main form window.

Although the forms designer will allow us to drag the box around the screen with the mouse pointer, we need to go into the 'Text entry Details' box to change the other attributes. To do this, we first need to tell the forms designer which of our database fields will appear in this new window. As

we're adding the four fields of our previously-created database in order, move to the 'General' tab of the 'Text Entry Details' window and select 'Title' from the drop-down list. Next, set the 'Width' option to "140", to allow us to see long title entries without having to scroll. As part of our newly-extended box will now have disappeared off the edge of the screen, set the 'Left Origin:' value to "10" and 'Top origin' to "20", to centre the box near the top of the screen. If you ever need to show more than one line of text for a given field, just set '#Lines' to whatever value you need. Finally, tap on the 'Attributes' tab. We won't change any of the default settings at the moment, but this allows you to change the font, colours, justification and other characteristics of our text. You might like to experiment with these as you use the forms

designer, but for now, the only important item to note is the check box labelled 'Editable'. If you uncheck this, the current field value cannot be changed when viewing this form on the handheld. This is of course ideal if you wish to create read-only views that can't be accidentally changed by a user, but it's not what we want here.

To clarify that this box in our form indeed contains the contents of our 'Title' field, we'll add a text label directly above it. To do this, select the 'Label' icon (with an 'A' on it) from the toolbar. As before, move to the 'General' tab to start setting the attributes. If we were setting this label to show an un-editable field value we could set the 'Data Source:' option to show the desired value. As we're simply using the default 'Title' field name that appears in our original database, we can set 'Data Source:' to 'Title' and 'Caption Source' to 'Field Name', which grabs the name for us. In practice, it's just as easy to use the other option, which is to leave the 'Data Source' option untouched, set 'Caption Source' to 'Other', and simply write our desired caption in the text box beneath it—either way works just fine. With the label now in our form window, drag it manually to the top left of the form, above the 'Title' field.

Next, repeat this process for the other three database fields. For the 'Artist' and 'Time' fields, it's identical to the 'Title' field, so experiment with sizing and moving the field and label boxes around to suitable positions on the screen, remembering that you can use a narrower box for the time field, as it's only showing two-digit numbers rather than text.

As the third field, 'Category', is of the 'pop-up' type, we have to add this in a slightly different way. Choose the 'Add a popup' icon (the seventh one from the left) and set the 'Data Source:' to 'Category' and the 'Caption Source' to 'Field Value'. Add the field label and position it as before.

As a general note while editing, you'll soon spot that there's no 'undo' feature in the forms editor, so be careful when selecting items and dragging them around the screen.

By all means spend a little time experimenting with the elements of your form, but try to finish off with something that looks roughly like the PC screenshot on the previous page.

In the next issue, we'll transfer this (rather rudimentary) form back to our handheld to see how it looks, then perform some further editing and enhancements to show the real power of the forms designer. For now, choose 'File | Save..' from the HanDBase Forms Desktop menu, and hit the 'Do Not Install' button. This will save the form on the PC but will not transfer it to the handheld as yet.

If you want to move ahead a little more quickly, you can transfer the form to the handheld and experiment for yourself. When you installed the software onto your PC it will automatically have added an HTML file called 'HanDBase Forms Documentation', which you can find from your 'Start' menu and open in your web browser.

Working with
Mobipocket

Some insights into this enhanced ebook reader
for virtually all handhelds and smartphones

Choosing an ebook reader program can be a tricky business. Of the three common PDA-friendly formats that support *encrypted* ebooks (see page 89), Mobipocket is the only one that runs on Palm OS, Pocket PC, Psion, Nokia communicators *and* the Sony Ericsson P800. Aside from simply reading ebooks, Mobipocket can be used to grab and view web-based news, AvantGo-style, as a reader for dictionaries, encyclopaedias and other reference works, and even as a viewer for Microsoft Word, Excel and Outlook files. Throw in a few other extras such as currency conversion with automatically updated exchange rates and the ability to convert your own HTML or PDF files into Mobipocket format and you've got what begins to look like a must-have application.

Robust reader

As an ebook reader alone, Mobipocket has much to recommend it. As well as supporting all major PDA platforms, it boasts a range of integrated dictionaries and reference works that is second to none. A basic (free) version of the reader is available for those who are happy with basic reader functionality, but most users will want to upgrade to the ($20) Reader Pro, which adds a number of options for customising the interface. More importantly, it allows you to annotate text by highlighting words, adding sketches and HTML-style hotlinks between related items, and to rotate the screen if you prefer to read with your handheld sideways or even upside down. There's also an auto-scroll facility in the Pro version, but we found that this tends to add random blank lines here and there in mid-paragraph, which is distracting.

In both versions of the software the text is fully zoomable, with support for different fonts and text smoothing. Another option
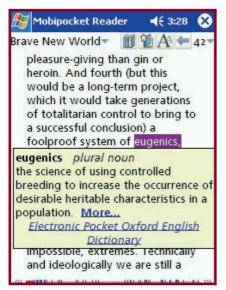
Reading an ebook on a high-res Palm screen. Note the red 'progress bar' with bookmarks/highlights marked

that we particularly like is to display a narrow margin of blank white space on the left and right edges of the screen, which simulates the margins of a 'real' book and makes long periods of reading easier on the eye.

Powerful lookups

A great feature of all good ebook readers is being able to tap on a word you're unsure of and have a built-in dictionary pop-up a near-instant definition for you. Unlike the Palm and Microsoft Readers there's no free dictionary available for Mobipocket, but if you're happy to pay for one then the selection for Mobipocket is second to none. These include a wide selection of Oxford University Press titles, including the 140,000 word Electronic Pocket Oxford English Dictionary, with the 18MB, 240,000 word Concise Oxford Dictionary of English

Looking up a dictionary definition in the Pocket PC version of Mobipocket—just drag the stylus over the word

due for imminent release—making it the most comprehensive lexicon of any ebook reader-based English language dictionary. Mobipocket is currently the only ebook reader that supports a range of dictionaries in British (rather than American) English, as well as a good selection of other languages. There are around 100 Mobipocket dictionaries available at present.

Uniquely, it's possible to look up words in your ebooks using *any* available Mobipocket reference work. As an example, if reading a history book you can switch your default dictionary to the Oxford Dictionary of World History (purchased separately, of course), which will then let you look up history-specific phrases that wouldn't appear in a general-purpose dictionary. The only fly in the ointment is that you have to go into your Mobipocket settings to switch dictionaries, but thankfully the process only takes a few seconds.

If you're using ebooks as a learning tool, or perhaps trying to improve your proficiency in a foreign language, Mobipocket is hard to beat.

Get the news

By setting up your news preferences via the eNews section of the Mobipocket web site, it's possible to grab from a limited selection of Internet-based newsfeeds that can be transferred to your handheld via a Windows PC during synchronization. The choice doesn't compare to AvantGo (*www.avantgo.com*), but there are more than 50 to choose from, including BBC news, CNN, Newsweek, New York Times, Time Magazine and a good selection of non-English news. In the latest version of the handheld Mobipocket software (4.7), it's also possible to download newsfeeds directly via a wireless Internet connection, without recourse to a desktop computer.

Easy exchange rates...

Using the same principle as for newsfeeds above, you can download daily-updated currency exchange rates for US, Canadian and Australian dollars, Yen, Euros and British pounds. Again this can be done wirelessly while you're on the move.

...Calculators too

As well as a currency rate calculator, the Mobipocket web site has a range of other free unit conversion calculators that operate from within the main Mobipocket application. These include general unit conversions, cooking conversions and a range of more specialised convertors covering engineering, finance, astronomy, and so on.

Make your own

Mobipocket's native file format is a variant of HTML, so it's no surprise that converting your own documents into Mobipocket format is a relatively straightforward process. For individuals wishing to create their own ebooks and etexts for personal use or free distribution to others, there's a free version of the PC-based Mobipocket Publisher software available for download from the Mobipocket web site. For creating encrypted ebooks for commercial sale, there are two paid-for versions of the Mobipocket Publisher software, with prices starting at $150.

All versions allow ebooks to be created directly from plain text files, RTF, Microsoft Word and HTML formats. Although it's possible to incorporate images with the text of Mobipocket files, these tend to bloat the otherwise compact files quite seriously, with just a few dozen images taking a 100K text file up to perhaps ten times that amount.

Desktop conversions

A PC-based Mobipocket Office Companion is available for converting Microsoft Word, Excel, PowerPoint and other office-based files into read-only documents that can be carried on the handheld. This is available in two versions, with the $30 'Professional' version offering more file conversion options than the basic $20 'Standard' edition.
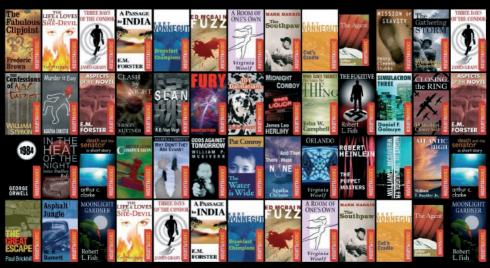
A number of other desktop document conversion and viewing applications are now available (including the PicSel Viewer that's bundled with some Sony Clie handhelds), and the new multi-platform RepliGo (*www.cerience.com*), which we'll be looking at in more detail in the next issue. The Mobipocket Office Companion does have some unique features, however, including the ability to export a complete Microsoft Access database or block of Microsoft Outlook contact details into a single Mobipocket data file, plus a range of encryption options to keep your Mobipocket files secure. If you need to carry a lot of office files with you but don't need to edit them on your PDA, Mobipocket Office Companion is worth investigating.

All the Mobipocket components discussed here are available from www.mobipocket.com, which also sells a large range of Mobipocket ebooks and reference materials.

Worth a Read

Our regular look at the ever-expanding world of ebooks and ebook-related software for your handheld

No matter how convenient ebooks may be, most of us object to paying as much for an electronic copy of a book as we would for a bound volume that would fit on our *real* (rather than virtual) bookshelf. Whatever our personal preferences may be when it comes to ebooks versus their paper counterparts, most of us agree that electronic books are, in general, too expensive.

If your reading preferences lean towards out-of-copyright classics then you'll probably find enough free ebooks to last you a lifetime (try *www.gutenberg.net* or *etext.lib.virginia.edu/ebooks*). If you like something a little more contemporary though, you'll normally find yourself having to pay for most of your e-reading.

A virtual library

If you don't feel the need to keep a copy of your ebooks once you've read them, subscribing to an ebook library is a great way to keep your reading costs down to a negligible level. There are currently only two mainstream ebook libraries to choose from and both are still relatively small, but for most readers they already offer a sufficient range of titles to make their nominal subscription costs worthwhile.

You should KnowBetter...

Although less than a year old, the Know-Better library (*knowbetter.com*) maintains an excellent web site that's updated regularly and contains lots of interesting ebook-related news, gossip and discussion forums, as well as the library itself. There's a useful listing of ebook publishers and formats (though the latter is a little short on critical discussion), and the whole site is an ebook reader's goldmine in its own right.

The library itself contains just over 1600 titles at present. Around half are currently in the science fiction category, and admittedly some of the categories contain no more than a handful of titles, but the library is growing at a healthy rate, so we should see a more complete and rounded selection emerging as the months pass. In each category, titles vary from short stories as brief as 300 words or so, through to novellas and full-length novels.

So how does this 'electronic' library work? When 'checking out' a book for loan, you have to specify a loan period of between three and 14 days. You then download the title to your desktop computer, whereupon it can be transferred to your handheld and will then be accessible for the specified period, after which you'll be unable to open the file. This ensures that only one person is able to use each copy of the ebook at any time, and allows the library to legitimately purchase individual copies of each book for loan without infringing copyright laws.

To access the books, you have to use the excellent free Mobipocket Reader (see page 75). Aside from being a capable ebook reader, Mobipocket is an obvious choice, as it is the only reader that works on all major device types: Palm OS, Pocket PC, Symbian and Psion. You can also read the books directly on a PC, and an Apple Macintosh version of the reader is reputedly coming later this year.

The web site for the library is driven by the same underlying (LibWise) 'engine' as the excellent **FictionWise** ebook site (*www.fictionwise.com*), which allows you to browse through available titles, read helpful short descriptions and view a graph of reader ratings for each title, adding your own ratings as you go. If you're already registered with FictionWise, you can even use your existing username and password on the KnowBetter site.

Subscribing to the KnowBetter library for a full year costs only $20, which allows you to borrow up to three titles at a time and register yourself on the automated waiting list for books that are already checked out. You can try the library for free, checking out a single out-of-copyright classic title. Most importantly, you can browse the entire library *before* paying your subscription fee, to find out exactly how many of the titles on offer appeal to you.

Alternatively—Skoobe!

A more recent appearance on the ebook library scene is the UK-based **Skoobe** (see ad boxout below). Thanks to its use of the LibWise engine it looks almost identical to the KnowBetter library, except that the Skoobe library forms part of a larger site, which sells a range of ebooks in Microsoft Reader, Palm Reader and Adobe formats, as well as the Mobipocket-format books that are available for loan.

In terms of content there's an enormous amount of overlap between the two sites, although Skoobe currently only offers around 500 titles. Reflecting this smaller selection, a year's subscription costs only £6.50/$10 at present, and allows two titles to be checked out at a time. As with the KnowBetter site, Skoobe is well worth keeping an eye on, as it's also planning major expansion over the coming months.

www.MemoWare.com

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Our regular look at what's happening online and where to point your browser

Focus on Brighthand

In this issue, we take a look at **Brighthand**, where users can get talking about their handhelds. The site proclaims its support of "nothing but handhelds", and does indeed cover just about every palmtop device on the planet. It's received several 'net awards, and judging from the size of its membership list it's an unusually popular place to get together with others.

Brighthand's biggest attraction is its rather busy discussion area. There are sections for talking about all types of devices, with the most popular platforms such as Palm and Pocket PC having subcategories for each of the major brands. For example, under 'Palm', the Sony Clie section currently has over 1,200 threads and over 5,000 messages. The forums also extend to Windows, Palm OS and Symbian-powered smartphones, and have some general discussion areas for talking about the industry, news and new products.

At the bottom of the Brighthand home page there's a real-time indication of the number of users currently logged on (as I type, 156 users), and visitors can register for free to keep track of new messages and get email notification of updates to any message threads they're active in. This makes it a good place to get an answer to that niggling question, or to find quick help in a crisis. The speed of getting a reply to a message is pretty impressive, and even if you haven't got a question to ask right now, it's worth keeping a note of the site's address for emergencies.

Unusually for a PDA site, Brighthand doesn't concern itself with software downloads and shareware reviews. It sticks to what it does best, letting users talk about mobile computing. The site has a useful news section that members can contribute to, and the 'views' section also makes interesting reading. In its own words, Brighthand is more than a web site, it's a community, and with the number of

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Not logged in?
Login with username and password:

Login!

Welcome to the Brighthand Discussion Forums.
If this is your first visit, be sure to check out the **FAQ** by clicking the link above. You may have to **register** before you can post: click the register link above to proceed. To start viewing messages, select the forum that you want to visit from the selection below.

registered users increasing every day, it's one of the largest PDA communities online, and one that's well worth a look.

www.brighthand.com

Recent sightings

Just launched, **Pocket Games** is a new site aimed at becoming the first port of call for gamers, catering for Palm, Symbian and Pocket PC, as well as Java games for mobile phones. The selection of games is growing all the time, and games developers are encouraged to use this site to promote their wares.

www.pocketgames.com

On the subject of games, the similarly-named **Pocket Gamer** is a great place to look for news of the latest Pocket PC games, with screenshots, votes and reviews of new releases.

pocketgamer.org

Hollywood in your hand?

That's the aim of new web site, **Domain of the Infinite**. The site's owners believe that the Pocket PC is the ideal platform for movies, and they're in the process of making a selection of movies viewable on handhelds. Forsaking real actors in favour of digitally-generated characters, take a

look at digital filmmaking in action, with their first film, Ryak 7. More sci-fi, horror and comedy films are promised soon.

www.domainoftheinfinite.com

RevoWorld lives!

Psion Revo users had a shock recently, when the webmaster of this discussion area for Revo owners announced that he'd fallen in love with Sony Ericsson's P800, and would be working on a site dedicated to this new smartphone instead. Users will be relieved to know that he has since decided that the site *is* set to continue, and a revamp is on the cards soon. With most other Psion discussion groups closing down or growing ever-quieter, RevoWorld remains an excellent resource, and covers other Psion hardware as well as the Revo.

www.revoworld.com

In the last issue, we mentioned **Five-alive**, a site offering links to content designed for PDA users. Also worthy of note is **PDA Portal**, a directory of handheld-friendly web sites and resources that won't waste your precious bandwidth. At last count, the site contained 370 PDA-friendly web sites which can be accessed by category, popularity, alphabetically or via keyword search.

PDAPortal.us

And finally...

Finland, home of Nokia mobile phones, has just held its annual event for frustrated handset users. When you've finally had enough of your smartphone, seek some stress relief in this outlandish phone-throwing contest.

www.fennolingua.fi/mobile.htm

For links to sites visited by On The Net, go to *www.filesaveas.com/otn.html.*

Hints & Tips

Submit your hints and tips— every published entry wins TWO free issues added to your subscription!

Mind the gap

Palm OS

You can emphasise entries within a Memo Pad category by starting to write a new memo, entering a space and then tapping 'Done'. This entry appears in the memo list as a blank line, which can then be dragged around with the stylus to separate out other entries and make them easier to spot. Note that to get this to work you must have 'Preferences | Sort by' set to 'Manual'.

Denise Krell, Princeton, New Jersey, USA

In perfect step

Palm OS

If your employer forces you to use Microsoft Outlook on your desktop, note that it's now possible to keep it in perfect sync with Palm Desktop with a special utility, DoubleLook (*www.companionlink.com/dl4pd.htm*). With this, you can continue to use (and HotSync to) Palm Desktop while staying compatible with your work colleagues.

Graham Newton, Brighton, Sussex

Lightning launcher

Palm OS

I've often bemoaned the fact that Palm OS handhelds come with only four buttons to launch the most popular applications. I know it's possible to reassign these buttons (via 'Prefs') to launch any application loaded onto your device, but for me, four is not enough. In trying

to find a way to launch about a dozen of my favourite programs without resorting to my cluttered Applications screen, I discovered TealLaunch ($15, from *www.tealpoint.com*). This allows me to set up dozens of button combinations to start all the programs I need—more than I could ever remember the key combinations for.

As an example, I can set TealLaunch to launch one application with a quick press of, say, the Memo Pad button, but a different application if I press and hold the button down for a second. Also, I can use combinations of buttons, such as pressing two together, to launch yet more apps. Another button press can also be configured to pop up a TealLaunch window, which presents a list of either all my applications or just those I've used most recently, ready for instant launch. TealLaunch takes a few minutes to get to grips with as there are so many options, but it's well worth the investment if you want super-quick access to several programs.

Eric Linghurst, Gravesend, Kent

Who needs MP3?

Did you know that you can listen to digital music on your Nokia 9200 series communicator? To be fair, it's 'radio quality' at best over the built-in speaker, but on the plus side, you can fit in at least four times as many songs as you could if using conventional MP3 files. The trick is to use Nokia's free Multimedia Converter (*www.nokia.com/cda1/0,1080,1910,00.html*) which, in addition to handling all video formats, does a surprisingly good job of converting audio files as well. Use its 'Normal' compression setting and you'll end up with music at 250K per minute. That's over eight hours worth on a 128MB MMC expansion disk.

Graham Tyrell, Cork, IRELAND

Better deletions...

Psion

The 'Del' key on my Psion Series 5mx deletes characters immediately to the left of the cursor, but many users don't realise that by pressing [Shift]+[Del] instead, it's possible to delete characters to the *right* of the current cursor position.

Jamie Loke, Glasgow

...and quick insertions

Psion

Another feature that many Psion owners miss, pressing [Shift]+[Ctrl]+[C] in most applications (such as Jotter, Data, Agenda and Email) will bring up the same handy

'Insert special character' dialog that appears as a menu option in Word.

Jamie Loke, Glasgow

Save our screens

All handhelds

Having accidentally used a ballpoint pen on the screen of my handheld rather than the proper stylus, I've been on the lookout for a suitable screen protector to save my precious screen from further scratches.

I've found that the quality of these varies enormously, and with some it's practically impossible to squeeze all the air bubbles out when applying the protective film to the PDA screen. After having tried three different types, I used a Covertec screen protector (*www.covertec.com*). Unlike the others I'd used, this one seemed to suck itself down onto my iPAQ screen with no trapped air bubbles at all. Also, it's thicker than most of the protective films I've used, so is likely to last longer without getting scratched itself.

There are dozens of screen protectors on the market. Although many are not readily available in the country where I live, it's clear that not all of them are created equal, so be careful (and listen to other people's recommendations) when choosing which one to buy!

Finally, take the time to make your screen very, very clean before applying any screen protector film, as failing to do this will inevitably waste the protector and you'll have to apply a new one.

Daniel Franks, Leuven, BELGIUM

Ultimate outliner?

There's a lot of talk of 'outliner' programs that are capable of creating multi-level, hierar-chical notes, and they're a great idea for keeping anything that's a little more structured than a simple to-do list. One step beyond this concept for Pocket PC is Pocket Mindmap (*www.pocketmindmap.com*). This program does have a basic, outline-style view but, more importantly, each item can be repre-sented as part of a graphical 'tree', with branches to represent the various levels of your notes. If you're familiar with the popular concept of 'Mind Maps' then this will all make perfect sense.

Anyway, Pocket Mindmap is a powerful program that takes a little bit of effort to fathom, but if you're looking for something beyond a basic outliner, this is probably the tool for you.

Graham Smith, Leeds

Close it!

Pocket PC

Having switched from Palm OS to Pocket PC a few months back, I've been caught out by something that other new Pocket PC users might also have fallen foul of.

On a few occasions, I've apparently lost documents that I'd been working on, for no obvious reason. On further investigation, it seems that unlike Palm handhelds, Pocket PCs don't automatically save *everything* as you go along. Therefore, if you create (say) a note in Pocket Word and leave that file constantly open, it won't get saved until you close the file again. Normally this isn't a problem, but if your Pocket PC crashes before you do so, anything you've entered since your last save (in any files) will be lost forever. So, get into the habit of closing files as you finish with them.

Damian Johnson, Reigate, Surrey

Tap and hold!

Pocket PC

Because so many Pocket PC appli-cations have a handy contextual menu that pops up whenever you tap-and-hold on an item of text or other on-screen element (just like right-clicking under Windows), I've got myself into the habit of trying this in almost every new program I buy.

Of course, if I could be bothered to read the manual for every program I'd probably have discovered all these hidden features, but by spending just a few seconds to tap-and-hold in each program, I've found masses of useful shortcuts and features that I'd otherwise have missed!

Joey Mann, Sydney, AUSTRALIA

Q&A

Get your handheld-related questions answered by our editorial panel...

Viewing photos on your PDA

All handhelds

Q I have an iPAQ 3850 and I'd like to be able to use the SD card facility to view photos directly from my digital camera. The in-built Microsoft Media Player program doesn't seem to do this and I've searched in vain on various web sites, but can't find any mention of photo-viewing software. Can you help?

Brian Quinn, Knaresborough

A Most digital cameras nowadays either save their images to JPEG format by default, or have the option to do so. These images can be viewed directly on virtually any handheld device, either using built-in software or by adding a third-party application.

With Pocket PCs, you're quite right that Microsoft Media Player can't be used to view these files, but Microsoft Explorer can, as it needs to be able to view JPEG files (and GIF files) that appear in web pages.

Though acceptable for viewing the occasional image, Explorer doesn't give you the flexibility to zoom, rotate or otherwise control the way your pictures appear. There are several good image viewing programs that will allow you to do all this, and most offer a 'slide show' facility, often complete with PowerPoint-like transition effects so you can fade or swipe from one image to the next.

For Pocket PC, good viewers include Resco Picture Viewer (*www.resco-net.com*) and IA Album (*www.iastyle.com*), shown above.

For those running Palm OS, AcidImage (*www.red-mercury.com*) supports all common formats directly.

It's important to note that many other image viewer programs require you to convert images to their own proprietary format before transferring to the handheld. These programs will not of course be suitable if you want to take your memory card straight from the camera and plug it into your handheld.

Screen errors?

Q My Palm Tungsten handheld worked perfectly for the first month or so after I bought it, but now my stylus taps keep registering at a different spot to where I've actually tapped. I can keep things working okay if I go into preferences six times a day and go through the calibration process each time, but this is a real pain. I've never had a handheld computer before, but surely this isn't normal?

Alain Boutrain, Pau, FRANCE

A This is a frustrating but common problem, though some handhelds seem more prone to it than others. In the vast majority of cases a 'wandering digitizer' means that your screen has developed a fault, which in your case will be repaired or replaced free of charge under warranty. In a few cases, however, the problem may be software-related.

Before contacting Palm, HotSync to ensure you've got a full backup, then perform a HARD reset, which will erase all your data. Then, *before* restoring any data, try out your Tungsten to see if the problem has gone away. If it has, the problem will most likely be cured, and you can start restoring all your programs and data to find the culprit. If not, which is much more likely, you'll need to get the unit repaired.

Finally, there are occasionally bugs in the operating system that cause digitizer problems. In the case of the Palm Tungsten T, there's a specific software patch (available from *www.palm.com*) that fixes a known problem with the digitizer not registering correctly on the top 5mm or so of the screen, though this doesn't appear to be your particular problem. In any case, always check your manufacturer's web site for information before assuming a hardware fault.

Ebook confusion

Q I'm a big reader, and keen to try out some ebooks for myself, but I'm confused by all the formats available and I'm trying to work out what software runs on which hardware. What are the *practical* options, and which format is the best for ebook reading?

Graham Sandhurst, Fleet, Hampshire

A As you might imagine, there's no simple answer to which is the best ebook reader and, in any case, only one of the current readers will run on all major handheld platforms.

Unless you're planning to concentrate on reading nothing but out-of-copyright 'classic' works, you'll need an ebook reader program that can handle books created in *encrypted* format. Encrypted formats allow ebook publishers to distribute titles as downloadable files that can only be accessed by the person who has purchased the ebook, thus preventing illicit copying and distribution to others.

There are at present four formats that meet this requirement: Palm Reader, Microsoft Reader, Mobipocket (see page 75) and Secure Acrobat Reader.

Palm Reader, originally known as the 'Peanut Reader', is designed for all Palm OS handhelds, and secures ebooks from illegal copying by requiring you to input the number of the credit card you used to make the purchase in order to 'activate' the book. This relies on the assumption that people will be reticent to distribute their card details to illegally share ebooks with others. The Palm Reader software is now available for Pocket PCs as well as Palm OS, and in both PC and Apple Macintosh versions for reading on full-sized computers. One advantage of Palm Reader format is that

by tying purchases to your credit card number, books are linked to *you* rather than your particular device. In other words, you can change your PDA as often as you like without having to worry that your ebooks will no longer work.

Microsoft Reader is built into all current Pocket PCs, and is also available as a free download for Windows PCs. It has to be 'activated' by signing up for a (free) Microsoft Passport via the Microsoft web site. You're then allowed to activate the reader software on up to eight of your own handheld devices or PCs. If you exceed this number as you upgrade and change your computers, you can contact Microsoft for new codes.

Mobipocket Reader is available for Palm OS, Pocket PC, Symbian (including Psion, Nokia 9200 series, Nokia 7650/ 3650 and Sony Ericsson P800), and for Windows PCs, with an Apple Macintosh version slated for later this year. Purchased books are activated at the time of purchase by entering a special identification number that Mobipocket generates for your particular handheld. The code number is entered on the web site that you're purchasing your Mobipocket-format ebooks from, but you only need to do it once for each site.

Although this means that your books can only be read on the *exact* machine you have registered, it's possible to obtain up to two extra copies of the reader for use on extra devices (or a PC) that you own. Whenever you change your handheld, it's a simple matter to inform Mobipocket, who will issue you with a new code right away.

Secure Acrobat Reader format is designed primarily for full-sized computers running Adobe Acrobat 6. Although it works in principle with the latest version of the Acrobat Reader for Palm OS (see page 15), the reader is very poor and doesn't support any of the usual ebook reader functions, such as bookmarking, dictionaries, annotations, and so on.

So, in terms of operation there's not an enormous amount to choose between the three PDA-compatible formats. If you're running a Psion/Symbian device then Mobipocket is the only option open to you, if you're on Palm OS then you can choose Mobipocket or Palm Reader, and if you're a Pocket PC user then you have the choice of all three.

When selecting your reader software, the most important factor to consider is probably the number of book titles available in your chosen format. Although a number of ebooks are released for all three, there are currently more new (encrypted) titles appearing for Palm Reader and Microsoft Reader than for Mobipocket.

If you want to have access to the maximum number of ebooks, you'll probably want to use *all* the reader formats that are compatible with your handheld, even if you have a distinct preference for a particular one. All the readers are available in free versions, so you can try them out at no cost, though Palm Reader and Mobipocket are also available in enhanced versions that you'll need to pay for.

Get YOUR name in print!

If you have a puzzling question relating to your handheld computer then why not send it in to us? The most interesting questions will appear in the Q&A section on these pages, answered by our editorial panel.

Send in your entries by mail, fax or email using the contact details given on page 3.

Proporta now sells handhelds and GPS — Buy from the experts

ProBackup

Insert this clever MMC card into your Palm handheld, hit BACKUP and your data is safe. Hit RESTORE and it's back in place. Whether you've run out of power, corrupted your data or even lost your handheld, your data is just a click away. You don't even need access to a PC - ProBackup is so simple, your mum could use it.

ProWord

ProWord is the definitive dictionary for your Palm OS handheld - with over 145 000 words, if it's not in there, it's not a word. Amazing compression, intuitive interface - this is simply the best. £9.99.

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fast

[6] acting or moving or capable of acting or moving quickly

- fast film
- on the fast track in school
- set a fast pace
- a fast car

[7] (used of timepieces) indicating a time ahead of

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Next issue...

Planned for issue 6:

▶ **More hardware on test, including new PDAs and communicators from Palm, Sony, Sony Ericsson, Handspring, Nokia, JVC, MiTAC, Garmin and others**

▶ **By the numbers—a roundup of the best add-on calculators for your palmtop**

▶ **Viruses and your handheld. All you need to know to stay safe**

▶ **Our top 10 tips for making the most of your handheld's word processor or note-taking application**

▶ **On the road with your PDA. An in-depth look at the current state-of-the-art in handheld navigation aids**

▶ **Upgrading your handheld. Some practical advice, focussing on cost-effective, worthwhile improvements**

▶ **Speaking with your palmtop. Everything from voice control to learning aids and language tools**

▶ **An introduction to SMS, MMS and mobile multimedia**

▶ **Living with RepliGo. A tutorial/workshop for this universal document reader for most popular handheld platforms**

▶ **Getting to grips with HanDBase—part 5**

Plus all the regular features, including news, Hints & Tips, Q&A, Game Zone, Worth a Read, On The Net and much more...

Palmtop
Publications